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PUNJAB ADMINISTRATION REPORT,

1919-20.

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Report on the Administration of the Punjab and its Dependencies for 1919-20.

PART I.

GENERAL SUMMARY.

(The " year " throughout this report is not invariably the financial year ending 31st March 1920. At the heading of each chapter, with the exception of Chapter I, a reference is given to the departmental reports which contain details of the subject dealt with. The " year " of the present report is for each such subject the year mentioned in the title of the departmental report so referred to. In general, it may be said that the " year " in Chapters I, IV, V, VII, VIII, and IX means the financial year ending 31st March 1920, in Chapter II it is the revenue year ending 30th September 1919, and in Chapters III and VI it is the calendar year ending 31st December 1919.

The Administration Report for 1911-12 was a decennial report, and as such contained many sections of permanent interest to which reference may be necessary in order to understand the working of the Administration ; under the orders of the Government of India these sections are not repeated each year, but a reference is given to them in their place in the several chapters of part II of this report.

Except where otherwise stated, the Punjab in this report refers to the Punjab as at present constituted.)

Lieutenant-Governor.

SIR M. F. O'DWYER, G.C.I.E., K.C.S.I.,—until the 26th May 1919.

SIR E. D. MACLAGAN, K.C.I.E., C.S.I.,—from the 26th May 1919.

Security.

1. Although the war had ended $4\frac{1}{2}$ months before, the year under report was ushered in with ominous signs. A reaction from the strain of the war, in which the Punjab had played so conspicuous a part, was inevitable in the Province, as elsewhere. The rural areas had sent a very

large proportion of their best elements to other lands to fight for the Empire: of those who remained behind the Muhammadans began to be concerned about the probable fate of Turkey and the holy places of Islam. The spring harvest was unsatisfactory when a bumper crop was sorely needed, fodder was scarce and influenza had wrought fearful havoc. The commercial classes were exercised by the closer attention that was being devoted to income-tax assessments; and the townspeople, generally, were disappointed because the cessation of hostilities had brought no fall, but rather a further advance, in prices. Moreover, the politically-minded among them were speculating rather pessimistically on their prospects under the Reforms scheme and at the same time they keenly resented the passage by an official majority of the "Rowlatt" Act in the Imperial Legislative Council. Among the more unsophisticated residents of the cities and towns the grossest misrepresentation of the objects and provisions of this legislation gained credence; while the more intellectual party were invited to take the vow of "civil disobedience to the laws." This novel stratagem, indeed, gained no support in the Province: but the time-honoured Eastern device of displaying popular resentment by a day's complete cessation from business made a strong appeal to the city population, and a successful *hartal*, which took place in Amritsar on the 30th March 1919, was followed up with a similar demonstration in that city, in Lahore and elsewhere on the 6th April, leaving behind it an atmosphere surcharged with excitement and restlessness.

2. The first collision between authority and the forces of disorder occurred at Amritsar on the 10th April. Under the orders of the Local Government (acting under the Defence of India Act) two of the leading local politicians were deported and interned at Dharamsala. On the news becoming known an angry mob collected and, after suffering a few casualties from the fire of protecting military pickets in a frustrated attempt to rush the civil station, proceeded to commit a series of atrocious outrages in the city. The National Bank was looted and gutted and the Manager and Assistant Manager cruelly murdered; the Alliance Bank was attacked and the Manager assassinated. The Chartered Bank was saved, as well as its British officials, by the opportune arrival of armed Police. The Town Hall, Telegraph Office and Railways Goods Yard, Post Offices and Christian

buildings were seriously damaged, and a British railway guard and a Military Works sergeant were beaten to death. An attempt was also made on the life of a lady missionary who was left for dead in the street. By nightfall telephone and telegraph wires had been cut: endeavours had been made to destroy the main railway line and a suburban station had been burnt, while other similar outrages had been attempted or perpetrated.

3. The mob violence which began by being anti-Government had soon developed into anti-European hostility. Late in the night troops arrived, and the Commissioner requested the senior military officer to take such steps to restore order as the military situation required. The next two days (in the course of which Brigadier-General Dyer of the Jullundur Brigade had arrived) were spent in re-establishing control of the city and its environs. On the evening of the 13th April General Dyer marched a small body of troops to the Jallianwala Bagh, where a mass meeting was being held in disregard of an order already proclaimed by him forbidding any procession or assemblage of more than four persons. Withoutfurther warning fire was opened on the crowd at close quarters, resulting in the death of 379 persons and the wounding of many more, the numbers of which have never been accurately known.

4. In the meantime at Lahore when, on the 10th April, it became known that Mr. Gandhi had been refused permission to enter the Punjab and the Amritsar outrages had occurred dispositions of police and troops were quickly made. A city mob proceeded up the Mall towards Government House, and on refusing to stop was fired on by the police and suffered a few casualties. Later on, it became necessary again to fire on a crowd assembled by one of the City gates.

Various manifestations of sedition, accompanied by some violence, in and around the City marked the passage of the next two or three days; and on the 14th April three leading politicians associated with the "hartal" were deported. The next day martial law was proclaimed in Lahore and Amritsar, being extended subsequently to Gujranwala, Gujrat and Lyallpur Districts.

5. Other instances of outrages may be more briefly recounted. At Kasur, two warrant officers were murdered by a mob on alighting from a train at the Railway

Station (which was sacked), and other Europeans with difficulty rescued from death at the hands of the crowd. Post offices were looted or burned, and finally the gathering was dispersed by the fire of the police. At Gujranwala violence was not indulged in until the 14th April, when attacks were made on the telegraph and telephone wires and the mob was fired on by the police while attempting to destroy the main line. Subsequently, the Post office, *tahsil*, English church, dâk bungalow and district court were burned: and order was not restored until 3 aeroplanes arrived and employed bombs and machine-guns to scatter the crowds. The disorder which showed itself in the town of Gujranwala spread extensively in the Gujranwala District, outbreaks occurring in 14 different places and including attacks on Europeans and on the railway and its communications. In Gujrat a mob which had made an attack on the Mission school and headquarters railway station had to be dispersed by fire, while one or two comparatively minor outrages, such as the derailment of a train and cutting of telegraph wires, were reported. In the Lyallpur District also damage was done to Government property and railway communications. In other districts there were sporadic outrages and incidents, many of them in cantonments or at important points on the main lines of railways. In some cases the railway staff which had grievances of its own took a hand in fomenting disturbances or organizing strikes. From the 17th April the most serious manifestations practically abated, although wire-cutting took place as late as the 2nd May. The declaration of war by Afghanistan six days later imported a new element of uncertainty into an improving situation. By the 11th June martial law had been withdrawn from all areas except the railways: and this exception was abolished on the 25th August.

6. For the trial of offenders by Commissions three martial law ordinances were promulgated. In addition, minor offences under martial law were disposed of by officers (mostly military) exercising summary powers and known as Area officers, or by civil officers. On the termination of martial law tribunals were appointed under the Defence of India Act to try the more serious remaining cases. A large number of persons were sentenced by the courts to various terms of imprisonment, but during the summer the Local Government took occasion to modify a considerable proportion of the sentences, and towards the end of the year

two High Court Judges were appointed to revise all sentences of summary courts and many of the sentences passed by the Commissioners.

Finally, on the 23rd December, His Majesty the King-Emperor issued His gracious proclamation of clemency which was extended to all offenders except those condemned for the most heinous acts of violence. By the end of the year under report out of nearly 1,800 persons convicted by the courts only 86 were left to serve their sentences, apart from the 23 executed for murder.

7. The methods adopted for repressing the disorders were subjected to a good deal of public criticism, and a Disorders Inquiry Committee was appointed in October 1919 by the Government of India under the presidency of Lord Hunter to enquire into the circumstances of the rising and its repression in the Punjab and other Provinces. The Committee in March 1920 presented majority and minority reports by the British and Indian members, respectively. The conclusions arrived at will be found in the published report.

The close of the year was further marked by the meeting of the National Congress and of the Muslim League at Amritsar, during the last week of December 1919. The Punjab disturbances formed the chief topic of discussion at the Congress.

8. The outbreak of the Afghan war, to which allusion has been made above, was bound to lead to excitement on the Baluch frontier. Fortunately, no serious developments took place, the precaution of moving police reserves and small detachments of troops to threatened points proving sufficient to avert anything more serious than a few raids in which the marauders on one occasion at least suffered severely.

9. Apart from offences associated with the April disturbances, the police statistics show that in the year under review there was a substantial increase in the number of cognisable cases reported, amounting to 8 per cent. over the previous year's figures. Many adverse factors contributed to this result. Some of these have been referred to above : another was the influx of masses of demobilised men—and those the bolder spirits—into the province at a time of excitement. There were more than thrice as many dacoities as in the previous year, while burglaries and thefts were also much more numerous.

10. It is interesting to note that at the close of the year, as a result of the amnesty declared by Royal Proclamation in December, all orders of internments and restriction under the two special war measures known as the Ingress into India Ordinance and Defence of India Act had been cancelled, and the Province was able, on the 1st January 1920, to show a clean slate in this respect.

11. The existing settlements for the reformation of the criminal tribes have been further developed. But experience has shown that caution must be exercised in dealing with large numbers of tribesmen who are called on to abandon completely a nomadic for a settled and orderly life, or otherwise their health is likely to suffer by the sudden change of habit. Nearly two-thirds of these settlements are in charge of philanthropic societies, some of whom are reported as taking a keen interest in the welfare and progress of their charges. A very important step has been traced in revising the classification of the registered members of criminal tribes which has been undertaken in the hope that it may be feasible to exempt from all restrictions a large proportion of those now subject to various degrees of police surveillance.

Condition of the people.

12. The monsoon rainfall of 1919 was intense while it lasted, but unfortunately it ceased earlier than usual with the result that unirrigated autumn crops suffered and the sowings of spring crops were restricted. But river and canal supplies were abundant and the sown and matured areas were much more extensive than last year. The wheat harvest of 1920 although slightly below the "normal" was a fine one and the estimated yield was put at nearly 3,400,000 tons. All the other staples were estimated to have a higher than normal outturn.

13. An embargo was maintained on the free export of grain to Europe; and this restriction combined with the generally satisfactory results of the harvests helped to drive prices down and render the situation easier at the end of the year. One unsatisfactory feature in the agricultural situation is the shrinkage in the numbers of cattle and stock of all kinds. It is true that at the recent cattle census the figures for young stock were more than three-fourths of a million in excess of those recorded at the previous census, but kine, buffaloes, sheep and, in particular, goats among

agricultural or pastoral animals are all much less numerous; while horses, donkeys and camels also show a great falling off. To exceptional mortality, restriction of grazing areas and increased exports of horned cattle and horses, &c., this disturbing situation may be attributed. Measures are being taken by the Agricultural Department to deal with the problems involved.

14. As has been the case all the world over, high prices have hit hardest those classes who depend on fixed incomes and Government service for their livelihood, but the agricultural and commercial classes have again had a prosperous twelve months and the demand for labour has been unsatisfied. It is true that the average price of agricultural land in the Province as represented in terms of land revenue assessed has temporarily fallen, but this is mainly due to sales at nominal rates of Government proprietary rights to Crown tenants. The large increase in the income-tax assessments is an index of the prosperity of the commercial classes.

Finance.

15. At the end of the year under review the provincial balance sheet still exhibited a prosperous appearance. The closing balance had risen by Rs. 29 lakhs to Rs. 260 lakhs. It should be noted that this figure included Rs. 23 lakhs of accumulated Imperial assignments made for special purposes, but the year's revenue had improved by Rs. 87 lakhs, and a mere examination of the figures would have revealed no ground for uneasiness. A cloud, however, was beginning to gather on the horizon. Rapid as the increase in receipts has been, expenditure has been growing still faster and mounted during the twelve months by Rs. 94½ lakhs. Irrigation, Forests, Land Revenue, Excise, and Stamps, in the order named, are responsible for most of the augmented receipts and illustrate the constantly expanding prosperity of the Province. On the expenditure side Public Works, Police, Land Revenue and Law and Justice bulk most prominently. The causes generally for the heavier charges were the doubling of war allowances for six months and the concession of temporary allowances for a similar period for all Government servants drawing pay not in excess of Rs. 75 per mensem, the increased cost of grain compensation allowance, and the revision of the pay of several services.

16. There is no doubt that the Province will be faced with very heavy commitments in the near future. Revision of pay of all the non-gazetted establishments has been the most urgent problem, but on all sides the demands for grants to meet the clamant needs of a developing province are insistent. The new financial settlement which will come into force with the inauguration of the Reforms will provide the Punjab with considerably increased spending power, but it is to be feared that most of this will for the present be absorbed by the charges on account of revised pay referred to above. There are, however, sources of income which can be tapped without entailing any serious burden on the prosperous classes of the Province.

Agriculture and Rural Economics.

17. The general results of the harvests in the year 1919-20 have already been referred to. The early cessation of the monsoon had a direct influence on canal irrigation, an extremely keen demand being created for final *kharif* and preliminary *rabi* waterings. As a consequence, the Punjab canals had a brilliantly successful year, the area irrigated exceeding all previous records and falling little short of 10½ million acres. The net revenue earned of Rs. 324 lakhs is equivalent to a return of nearly 14½ per cent. on the capital outlay.

18. The interest of the zamindar in the scientific side of agriculture continues to grow ; and agriculturist students still preponderate in the Lyallpur Agricultural College, which has been affiliated to the Punjab University. A degree of B.Sc. is now granted to students who successfully complete a four years' course.

19. Experiment and research by the Agricultural Department is being carried on in such varied fields of investigation as the milling and baking qualities of various kinds of wheat, in nitrogen fixation in soils, in sericulture and the life histories of insect pests, and in the designing of agricultural machinery. The sales of improved implements trebled when compared with the previous year ; and the demand for selected seed sold by the department has resulted in a profit of Rs. one lakh.

20. The important place held by the forests in the Province's material resources is now fully recognised ; and despite the handicap of shortage of officers, considerable

progress made in exploitation has produced a surplus income nearly higher by six lakhs of rupees than has ever been known before. Other obstacles, with which the Forest Department has had to contend, are scarcity of skilled labour and transport and high working costs. It is recognised that profitable exploitation and development must rely more and more on mechanical appliances for transport, such as wire ropeways and steam tramways, and the provision of these facilities, where advantageous, is engaging the attention of the officers of the department.

Co-operation.

21. Those interested in the co-operative movement are able to look back on a year in which there was noticeable progress both in the number and quality of the societies.

Primary Agricultural Credit Societies increased by over 1,500 to 6,600, and it is clear that the highly-trained supervisory staff have won the confidence of the people, who are now ready enough to organize themselves for definite economic ends. The steadily growing proportion of inspected societies which are classified as good is a proof of the spread of an intelligent comprehension of the principles of co-operation and of the conviction that existing unsatisfactory conditions can be ameliorated by a system of organized self-help. Members of these primary societies now possess well over a crore of rupees in shares, reserve and profits, while from three districts it is reported that the capital owned exceeds the sums borrowed. Over one thousand societies are independent of the aid of Central Banks : and in more than two-thirds of these the members are stated to be entirely free from debts to money-lenders.

22. The control of the Central Banks is rapidly passing into the hands of the primary societies whose representatives take a continually larger share in the deliberations at general meetings. Additional Central Banks, Credit Unions and Supply Unions have been registered : and these secondary institutions are year by year increasing their share capital and reserve. The multiplication of transactions between the primary societies and other financing agencies is illustrated by the fact that their value has grown in four years from Rs. 25 lakhs to Rs. 87 lakhs.

23. The experience of the last twelve months seems to justify the belief that rural supply as a function of agricul-

tural societies is gaining in popularity. Cattle insurance is, also, advancing in general estimation. There are naturally many difficulties attendant on the introduction of so novel a feature as this into rural life: but the vast economic waste due to heavy cattle mortality is emphasized by the very large proportion of loans made by agricultural societies for the replacement of cattle.

24. Other novel forms of co-operation initiated were co-operative consolidation of holdings; societies to deal with the problem of excessive fragmentation; societies to suppress unnecessary litigation by organization of arbitration; societies to reclaim lands destroyed by hill torrents, and night schools. As a result of the persistent efforts to stimulate among co-operators a more lively interest in the improvement of agriculture, over 1,000 improved ploughs and agricultural implements were sold, as well as thousands of maunds of selected seed and all available fruit trees.

On the industrial side there were additions to the number of weavers' societies and the formation of three unions. The central weavers' store had a successful year, while several dyers' societies were registered.

Vital Statistics and Medical Relief.

25. The year proved to be an unusually healthy one, and with the exception of 1900 and 1912 returned the lightest death of any year during the present century. The Province was spared any recurrence of the influenza epidemic, and the only diseases that claimed an increased number of victims were cholera and small-pox. The deaths from plague were only about one-sixth of the preceding year. Infantile mortality was as usual high: and it is instructive to note as an index of the comparative stages of civilisation reached that the death rate of children less than one year old was 2½ times the English rate. The birth rate showed some recovery, but the effects of the previous year's influenza epidemic were still apparent in the fact that this rate was well below the average of the previous five years. The Province, however, recorded a net gain of births over deaths exceeding a quarter of a million.

26. The Medical Department has again been heavily overworked owing to shortage of personnel. Contrary to expectation, large numbers of qualified doctors have been retained in military service: and their absence has severely impeded progress.

The number of new dispensaries added to the open institutions was 19, while six were closed. The new wards and operating theatres of the completed Mayo Hospital, Lahore (King Edward Memorial Scheme) were brought into use during 1919. Thanks to the healthiness of the year the number of out-patients showed a marked decline. The number of in-patients, however, increased, as did the number of surgical operations performed.

27. Arrangements have been made in the Rawalpindi District for an itinerating dispensary for women in charge of a European lady doctor. The paucity of qualified medical women continues to be a most serious obstacle to the extension of efficient medical aid to women by their own sex. It is possible that the recent constitution of a Government service for women Sub-Assistant Surgeons may induce a larger number of young women to enter for the M. P. L. diploma than hitherto, but so far the signs are not very hopeful. Classes for the training of nurse *dais* and indigenous *dais* have been carried on at several centres in the Province, wholly or partially assisted by the Victoria Memorial Scholarship Fund.

Excise.

28. The enormous rise in the revenue derived from excise which has again to be recorded can be a source of satisfaction only from a fiscal point of view. Although prices ruled higher, and the number of retail shops licensed were fewer, the consumption of country spirit increased by 19 per cent. There was no epidemic disease to account for this freer indulgence in drinking by the public: and it is a further sign of the times that the consumption of the more expensive spiced spirit is rapidly overtaking that of the cheaper plain liquor. In short, the drinking section of the public having more money to spend are spending more on alcohol, while the action taken in various directions such as enhancement of price and curtailment of facilities has not proved drastic enough to counterbalance the new influences at work.

The brewing of beer, on the other hand, which is consumed almost entirely by British troops, has fallen off, the explanation being that the modern soldier is much more abstemious than his prototype of the old army.

29. The persistent shrinkage in the consumption of opium is ascribed partly to the steady suppression of facilities beyond bare requirements and partly to a change of popular taste which appears now to seek gratification from liquor rather than narcotics. The situation, however, in regard to *charas* calls for careful watching, for although imports were artificially stimulated by the knowledge of traders that an enhancement of duty was impending, signs are not wanting that an increase of consumption may become general. The question of a further advance in the import duty is under consideration.

30. District advisory committees have continued to put forward practical suggestions which it has usually been found possible to adopt. The Standing Committee of the Legislative Council met twice during the year and, pursuant to its suggestions, tests of the materials used in country liquor, closure of liquor shops at fairs in the Ludhiana District and the extension of the system of sale in sealed bottles have been carried out.

Trade and Industry.

31. The war provided a great stimulus to the export trade of an agricultural country like the Punjab with the result that during the closing stages of hostilities there was a substantial balance of trade in favour of the Province. With the resumption of peaceful conditions it was but natural that the reverse side of the shield should become more prominent: and the renewed demand for imported goods of all kinds, of which the Province had for years been starved, left in the year under report an adverse balance of trade.

32. Several factors intervened to disturb the ordinary currents of supply and demand. In particular, trade and industry were hampered by the inability of the railways to provide sufficient rolling stock to meet the demand for coal and coke: and inter-provincial restrictions placed on the movement of food-grains, owing to the general unsatisfactory nature of the spring harvest, affected provincial statistics of imports as well as exports. Rice and sugar bulk much less than before in the figures for imports; and although the outside demand for cotton continued to be vigorous and there was again a large increase in the weight and value exported, this by no means compensated for the

severe shrinkage in the exports of wheat and gram, which was returned as less by nearly six hundred thousand tons valued at over seven million pounds sterling.

33. Imports of gold coin, although in an unappreciable quantity, made their reappearance; but there was a huge falling off in receipts of silver coin mainly owing to the restrictions placed on issues from treasuries.

34. The statistics of trans-frontier trade with Afghanistan, Central Asia and Tibet exhibit a general decline in the volume and value of imports, and a decline in the volume but advance in the value of exports, leaving the balance of trade very much in favour of the Province. The political situation in Central and Russian Asia has naturally led to a decrease of imports and a stimulus to exports to the regions affected. The high prices fetched across the borders by animals has produced a marked effect on the transport problem, and it is stated that the enormous cost of carriage has extinguished the trade in cheap Indian drugs as no longer profitable.

35. Signs are not wanting that the Punjab is about to enter on an era of industrial activity; and the increasing importance of commerce and industry in provincial life has been recognised by the constitution of a new Department of Industries under a separate Director whose functions had hitherto been performed by the Director of Agriculture. A Government Weaving School is engaged in training students in various textile arts and operations, while a Government Dyeing School has achieved encouraging progress under an expert who has already succeeded in interesting capitalists concerned with weaving factories. The number of factories in existence has been augmented by 44, mainly owing to construction of new ginning factories in the canal colonies. But the insignificance of the factory population in the Punjab even with these additions to the previously existing 200 factories, is clearly demonstrated by the returns which give a daily average of persons employed in all industries subject to the Factory Act of less than 40,000 out of a population now estimated at over 20 millions.

36. It was unfortunate that the Inspector of Factories was absent on military duty and leave throughout almost the whole year, as district officers were unable, owing to other

pre-occupations, to supply the gap; and a great deal will have to be done in the near future in order to bring factory conditions up to a proper standard.

Local Self-Government.

37. The salient features in the year's chronicle of District Board administration are the re-constitution of all the boards and the institution of the new electoral rules. It cannot, indeed, be said that these innovations have yet exercised any powerful stimulus on the electorate, for the percentage of voters who went to the polls in a greatly increased number of elections was only about 1 in 5. Still it may fairly be anticipated that enthusiasm will wax when, as contemplated, the official element on the boards has been further curtailed and wider powers of taxation with concurrent responsibility have been conceded. Even as things are, the interest shown by members in the deliberations of their boards is steadily increasing. It is the reluctance of these members to undertake executive duties that stands as the great obstacle in the path of progress.

38. Like other bodies, the District Boards are faced with all the difficulties consequent on the rapid rise in expenditure under present-day conditions: and various devices, such as the imposition of profession and status taxes, are being resorted to with the object of producing equilibrium between income and expenditure. This would be more readily attainable in many cases if the boards could conquer their reluctance to raise revenues by direct taxation rather than by appeals to Government for grants.

39. The spheres of activity for the boards are naturally diverse. The maintenance of industrial schools, veterinary dispensaries and demonstration farms, the supply of well-bred bulls and rams for cattle and sheep breeding, experiments in sericulture and the promotion of arboriculture (with not wholly satisfactory results) are items found in the programmes apart from more humdrum business. A decided step forward in hygiene and sanitation has, it is hoped, been taken with the appointment of district health officers in certain districts with the object of improving the public health in rural areas.

40. As regards municipalities there are still complaints that elections and preparations therefor are marred in

some instances by corrupt practices : but it is gratifying to be able to record that the policy of withdrawing official control has undoubtedly succeeded in stimulating in the citizens affected a quickened interest in municipal affairs and a desire to participate in membership of the committees.

41. Apart from the elaboration of numerous important schemes of drainage and water supply which have been held in abeyance during the war, an interesting sign of progress is the thought which is being focussed on such social problems as the relief of congested areas, the adulteration of food, &c. But as in the case of district boards the municipal committees are hampered by want of funds and even with generous subventions from Government will be constrained, sooner or later, to increase their taxation if these schemes are to attain fruition. In this connection it is noteworthy that the substitution of the direct terminal tax for the cumbrous and costly octroi system is beginning to make headway in popular favour.

Education.

42. At the close of the year under review the Province could claim to possess over 9,600 public and private educational institutions attended by more than half-a-million of scholars (including sixty thousand girls). A noticeable rise in the number of agriculturists is reported. The expenditure reached nearly $1\frac{1}{2}$ crores of rupees of which Government's direct share was over 64 lakhs of rupees.

43. The year's report discloses much solid progress in the schemes originated last year : but, so far, the principle of compulsory Primary Education, which has been embodied in the Primary Education Act, has not been put into operation anywhere. The Multan municipal committee has decided on this step from April 1921, while both the Lahore and Amritsar Municipal Committees are endeavouring to re-organise their system of elementary education with the idea of introducing compulsion.

44. Most of the districts are behind hand in the provision of suitable primary school buildings and any nascent enthusiasm in this direction has been chilled by the enormous expenditure with which Boards and Committees are confronted now-a-days when framing even unambitious

schemes. Government has, however, now come to the rescue by offering generous terms for building grants.

45. As regards secondary education the thirst for the knowledge of English continues unabated. Instruction in Agriculture, for which a number of qualified teachers are already available, has been begun in many schools : and in several flourishing centres manual training has been established. There has, however, been some retrogression in the number of students attending technical institutions despite good progress in the training of teachers and the provision of the necessary education. The schools for disabled soldiers and for the blind at Lahore are doing useful work ; while the record of female education shows a marked step in advance and gives promise of continued expansion in the future.

PART II.

DEPARTMENTAL CHAPTERS.

CHAPTER I.

Physical and Political Geography.

1.—Physical Features of the Country, Area, Climate, and Chief Staples.

(See pages 1—16 of the report for the year 1911-12.)

2.—Historical Summary.

(See pages 16—30 of the report for the year 1911-12.)

3.—Form of Administration.

(See pages 30—48 of the report for the year 1911-12.)

4.—Character of Land Tenures and System of Surveys and Settlements.

(See pages 48—58 of the report for the year 1911-12 and the Punjab Settlement Manual.)

5.—Civil Divisions of British Territory.

(See pages 59—62 of the report for the year 1911-12.)

6.—Details of the last Census—Tribes and Language.

(See pages 62—71 of the report for the year 1911-12.)

7.—Changes in the Administration.

1. SIR MICHAEL O'DWYER, G.C.I.E., K.C.S.I., held charge of the office of Lieutenant-Governor of the Punjab until the 26th May 1919, when he proceeded on combined leave preparatory to retirement, and was succeeded by Sir Edward Maclagan, K.C.I.E., C.S.I. Before assuming charge of the Lieutenant-Governorship Sir Edward Maclagan was, on return from leave on the 1st May 1919, placed on special duty at Lahore.

2. The untimely death, on 3rd January 1920, of Sir Henry Rattigan caused a vacancy in the Chief Justiceship of the High Court of Judicature, Lahore. This was temporarily filled by the Hon'ble Mr. Justice Chevis, who was relieved on the 30th April 1920 by the Hon'ble Mr. Justice Rai Bahadur Shadi Lal on his appointment as permanent Chief Justice

The year under report also saw the appointment, on the 16th June 1920, of the Hon'ble Mr. Justice Khan Bahadur Saiyid Muhammad Abdur Rauf as a permanent Judge of

the High Court; the appointment of Additional Judge, which has been extended up to the 31st March 1921, being filled by the Hon'ble Mr. Justice Wilberforce.

3. The only other important change during the year was the constitution, with effect from 1st November 1919, of the Sheikhupura District out of portions of the Gujranwala, Lyallpur, and Sialkot Districts. This necessitated the addition of one more post to the cadre of Deputy Commissioners.

8. Relations with Tributary States and Frontier Affairs.

I.—PHULKIAN STATES.

4. Mr. T. Millar, I.C.S., held charge of the Agency from 5th April 1919 to 11th October 1919, when Mr. L. M. Crump, I.C.S., resumed charge of his duties.

Owing to Mr. Crump's sudden illness Mr. W. C. Renouf, I.C.S., Political Agent, Bahawalpur Agency, was put in charge of the current duties of the Political Agent, Phulkian States, on the 10th November 1919. Mr. Crump resumed his duties on the 1st December 1919.

The post of Personal Assistant remained vacant.

PATIALA.

Area, 5,412 square miles; population, 1,407,659; approximate revenue, Rs. 117 lakhs; army and police, 5,557; Major-General Maharaja Sir Bhupendra Singh, G.C.I.E., G.B.E., Sidhu Jat; aged 29; has a male heir; salute, 19 guns (including 2 personal).

Personal.

5. His Highness the Maharaja has been in excellent health throughout the year. He spent the winter at Patiala and the summer at Chail as usual, and attended the Chiefs' Conference held at Delhi in November 1919. During the April disturbances the Maharaja toured twice in company with the General Officer Commanding along the lines of communications which were guarded by the State forces. He also acted during the Afghan campaign as special service officer on the staff of the General Officer Commanding the North-West Frontier Force.

Administration.

6. Following the precedent set in the Punjab the Chief Court was raised to the status of a High Court presided over by a Chief Justice.

The Police Department was reorganized by an officer lent by Government. Two settlements of criminal tribes have been initiated. The hydro-electric scheme for the extension and irrigation and supply of power to industries is under consideration, and a survey of the economic resources of the State has been begun.

Military.

7. As indicated above, the State rendered most valuable assistance to the Punjab Government during the disturbances of 1919, successfully undertaking the protection of railway and telegraphic communications in the State and adjoining districts. Imperial Service Troops, together with a camel and a mule corps, took part in the Afghan War.

Crops and irrigation.

8. The spring harvest was, thanks to the large proportion of irrigated area, an average one; the autumn crop was also satisfactory.

Public health.

9. The birth-rate of 29·29 *per mille* was slightly lower than last year (29·95). The death-rate shows a striking decline from 70·30 *per mille* to 19·45, owing to the absence of influenza which proved so fatal in the previous year.

JIND.

Area, 1,259 square miles; population, 271,728; approximate revenue, Rs. 24 lakhs; army and police, 1,815; Lieutenant-Colonel Maharaja Sir Ranbir Singh, G.C.I.E., K.C.S.I., Sidhu Jat; aged 41; salute, 15 guns (including 2 personal).

Personal.

10. His Highness enjoyed good health during the year under report. He resided in the State throughout the year except from the 22nd June to the 20th September 1919, when he was at Bhimtal. His Highness also, as usual, made tours in the three districts of the State.

His Excellency the Viceroy paid a private and unofficial visit to the State on the 23rd October 1919 during the course of his autumn tour.

Administration.

11. On the death of Sir Shamsher Singh His Highness reorganised his Council, appointing Dr. Bihari Lal as Chief Minister of the State.

Considerable attention was given to the improvement of Primary schools, while a course of commercial training was instituted in the Sangrur High School.

Military.

12. His Highness afforded valuable aid in the suppression of the April riots and disturbances by deputing detachments of the Imperial Service Troops and of the police to guard the railway running through the State. He also placed all his resources and his Imperial Service regiment at the disposal of Government for the Afghan War.

Crops.

13. The autumn harvest was rather above the average of the last five years with abundance of fodder; the spring crops were below normal.

NABHA.

Area, 928 square miles; population, 248,887; approximate revenue Rs. 20½ lakhs; army and police, 1,532; Maharaja Ripudaman Singh, Sidhu Jat; aged 37; has a male heir; salute, 11 guns.

Personal.

14. His Highness the Maharaja enjoyed good health on the whole. He paid a visit to Simla during the summer. A son and heir was born on the 19th September 1919.

Administration.

15. Pandit Sri Krishna Joshi was appointed to act as Chief Secretary. The harvests are reported to have been fairly satisfactory.

II.—STATES OF THE BAHAWALPUR AGENCY.

16. Mr. W. C. Renouf, I.C.S., held charge of the Agency during the year.

BAHAWALPUR.

Area, 15,000 square miles; population, 780,641; approximate revenue, Rs. 43¾ lakhs; army and police, 2,068; Nawab Sadiq Muhammad Khan, Abbasi, V., Daudputra; aged 15; salute, 17 guns.

Personal.

17. His Highness the Nawab enjoyed excellent health except for a mild attack of measles. His physique has developed satisfactorily in the last year, and his progress at College is creditable. Mr. M. S. Leigh, I.C.S., took over charge as tutor and guardian to His Highness in December 1919.

Administration.

18. Sir Rahim Bakhsh continued as President of the Council of Regency, which has again successfully carried on the administration. The State finances are flourishing, a balance of Rs. 140½ lakhs having been accumulated towards defraying the State's share in the Sutlej Canal Scheme. There is great

scope in the State for improvement in the existing canal system; but the Council have been hampered in its schemes by inability to secure the loan of expert engineers from the Local Government. Progress has been made in providing amenities at the capital. The railway communications in the State were guarded during three months of 1919 by the local police and zamindars. The Camel Transport served in the Afghan War on the Frontier.

Maler Kotla.

Area, 167 square miles; population, 71,144; approximate revenue, Rs. 13¾ lakhs; army and police, 1,026; Lieutenant-Colonel Nawab Sir Muhammad Ahmad Ali, Khan Bahadur, K.C.S.I., Pathan; aged 39; has a male heir; salute, 11 guns.

Personal.

19. The health of His Highness the Nawab remained good throughout the year. He spent the summer at Mashobra and Simla. His Highness was promoted to the honorary rank of Lieutenant-Colonel in the Indian Army with effect from the 31st December 1919.

Military.

20. The 1st Company of the Imperial Service Troops returned in April from Mesopotamia, while the 2nd Company (which was also maintained over strength during the war) did service for five months on the Frontier in connection with the Afghan trouble.

General conditions.

21. The harvests were satisfactory. The birth-rate considerably exceeded that recorded in the previous year. Deaths fell from 2,396 to 442, the high mortality of the preceding year being due to the influenza epidemic.

Faridkot.

Area, 642 square miles; population, 130,294; approximate revenue Rs. 15½ lakhs; army and police, 371; Raja Har Indar Singh, Barar Bans Jat; aged 5; salute 11 guns.

Personal.

22. His Highness the Raja and his younger brother enjoyed generally good health during the year, spending the summer at Kasauli.

Administration and general conditions.

23. A permanent Council of Administration, with Rai Bahadur Lala Ganga Sahai, I.S.O., as President, was established in June 1919.

The financial condition of the State is very satisfactory, the accumulated balances at the end of the year amounting to nearly Rs. 71½ lakhs. Both harvests are reported to have been good. In the autumn great success was obtained in the cultivation of American cotton.

In the absence of any epidemics the public health was good, and there was a decline of 6,500 deaths as compared with the previous twelve months.

The Imperial Service Sappers Company was detailed for duty at Ferozepore during the April disturbances, and subsequently served for six months on the North-West Frontier in connection with the Afghan War.

III.—STATES OF THE JULLUNDUR DIVISION.

KAPURTHALA.

Area, 630 square miles; population, 268,133; approximate revenue, Rs. 37 lakhs (inclusive of Rs. 19 lakhs income from the Oudh Estate); army and police, 2,416; Lieutenant-Colonel Maharaja Sir Jagatjit Singh, Bahadur, G.C.S.I., Ahluwalia Sikh; aged 47; has a male heir; salute, 15 guns (including 2 personal); tribute Rs. 1,31,000.

Personal.

24. His Highness the Maharaja kept good health throughout the year. He returned to the State from a visit to Europe in December last, but again proceeded to Europe for seven months in March 1920.

Administration.

25. The administration of the State was, in the absence of His Highness the Maharaja in 1919, carried on by the Tikka Sahib and Khan Bahadur Sardar Abdul Hamid, O.B.E., Diwan and Chief Secretary of the State. The Tikka Sahib also this year went on a visit to Europe, and during His Highness and the Tikka Sahib's absence the administration was conducted by the Diwan with the assistance of a State Council.

The Imperial Service Troops were employed in connection with the Punjab disturbances, and were on active service in Seistan in the Afghan campaign.

Vital statistics.

26. The morbidity and mortality statistics show that the State was singularly free of plague throughout the year.

MANDI.

Area, 1,200 square miles; population, 181,110; approximate revenue, Rs. 11½ lakhs; army and police, 360; Raja Jogendra Sen, Rajput Mandal; aged 16; salute, 11 guns; tribute, Rs. 1 lakh.

27. His Highness the Raja continued his studies in the Aitchison College, Lahore, and is reported to be making good progress, being now in the upper fifth form. He is also doing well in his religious studies under his Brahman instructor. The Raja was betrothed to the second daughter of Tikka Devi Singh of Delath State, Simla Hills.

Administration.

28. Mr. J. R. S. Parsons, I.C.S., remained in charge of the State during the whole of the year.

The revenue from salt shows some expansion; but for some time past it has been considered very desirable to introduce new methods in the working of the mines. The Commissioner, Northern India Salt Revenue, has suggested that mining should take the place of quarrying, but that before embarking on so radical and expensive a scheme a geological survey of the quarries should first be made. The Darbar accordingly applied for the services of an officer of the Geological Department, and the Assistant Superintendent has been deputed by the Government of India to make a detailed survey of the salt-bearing rocks at Guma and Drang.

SUKET.

Area, 420 square miles; population, 54,928; approximate revenue, Rs. 3¼ lakhs; army and police, 78; Raja Lachhman Sen, K.C.I.E., Rajput; aged 33; has no male heir; salute, 11 guns; tribute, Rs. 11,000.

Personal.

29. His Highness Raja Sir Bhim Sen, K.C.I.E., died of pneumonia on the 12th October 1919, and was succeeded by his brother. Kanwar Lachhman Sen, who held a formal installation Darbar in March 1920, which was attended by His Honour the Lieutenant-Governor.

Administration.

30. The new Raja is taking much interest in the conservation of his valuable forests, which have suffered from over-exploitation.

IV.—STATES OF THE LAHORE DIVISION.

CHAMBA.

Area, 3,216 square miles; population, 135,873; approximate revenue, Rs. 4 lakhs; army and police, 419; Raja Ram Singh, Hindu Rajput; has no male heir; aged 29; salute, 11 guns; tribute, Rs. 2,225.

Personal.

31. The most important event of the year was the demise of Raja Sir Bhure Singh on the 22nd September 1919 and the succession of Tika Ram Singh, his elder son.

The new Raja obtained the sanction of Government to the engagement of Lieutenant-Colonel C. P. Thompson, C.B.E. (until recently a Commissioner in the Punjab) to advise him in the administration of the State.

Administration.

32. His Highness has interested himself in placing vaccination and excise administration on a more modern basis in the State. A contingent of the State troops was employed on patrol duties on the Dalhousie-Dunera road during the April disturbances; while His Highness continued his annual contribution of over Rs. ½ lakh towards the maintenance of the Chamba Company of the 2-41st *Dogras*. For his loyal assistance in these and other matters the Raja received the cordial thanks of the Local Government.

V.—STATES OF THE AMBALA DIVISION.

SIRMUR (NAHAN).

Area, 1,108 square miles; population, 138,250; approximate revenue, Rs. 6 lakhs; army and police, 632; Lieutenant-Colonel Maharaja Sir Amar Prakash, K.C.S.I., Rajput; aged 31; has a male heir; salute, 11 guns.

Personal.

33. His Highness continued to administer his State efficiently, and was granted unrestricted criminal powers in passing sentences on his State subjects.

Administration.

34. The services of the Imperial Service Sappers were placed at the disposal of Government in connection with the Afghan campaign.

KALSIA.

Area, 168 square miles; population, 55,909; approximate revenue Rs. 2¾ lakhs; army and police, 164; Raja Ravi Sher Singh, Jat Sandhu Sikh; aged 17; has no male heir.

Personal.

35. The young Raja has now completed his education at the Aitchison Chiefs' College, Lahore, and is being gradually associated with the work of the State with the help of the State Council. He proceeded to Mussoorie for the hot weather, where he kept good health. Major Clifford has been appointed as his tutor in place of Mr. Eden, deceased. The

State continued to be administered successfully by the Council of Regency.

General.

36. The financial condition of the State is very satisfactory: considerable attention has been devoted to medical relief, both male and female.

PATAUDI.

Area, 53 square miles; population, 18,597; approximate revenue, Rs. 1 lakh; army and police, 77; Nawab Muhammad Iftikhar Ali Khan, Bahadur, Afghan; aged 10 years.

37. The State continued to be administered by the Council as before, and is in a satisfactory financial state. The young Nawab is now being educated at the Aitchison College.

LOHARU.

Area, 224 square miles; population, 18,597; approximate revenue, Rs. 1 lakh; army and police, 80; Nawab Sir Amir-ud-Din Ahmad Khan, Bahadur, K.C.I.E., Mughal; aged 60; has a male heir; salute, 9 guns.

Personal.

38. Sahibzada Wali-Ahd Aiz-ud-Din Ahmad Khan, the Heir-Apparent and Administrator, administered the State efficiently with the help of his father. The Nawab, the Heir-Apparent, and the third son all offered their services in connection with the Afghan War. The Nawab offered his services as an interpreter for the Peace Conference at Rawalpindi. The eldest Sahibzada was given the rank of Captain and appointed as an Honorary Aide-de-Camp to the Inspector-General of Communications, Peshawar. The youngest son, Sahibzada Aitzaz-ud-Din Ahmad Khan, received the temporary rank of 2nd-Lieutenant and served on the Staff of the General Officer Commanding, Baluchistan.

The Nawab joined the Chiefs' Conference held at Delhi during October and November 1919.

The indebtedness of the State is being steadily reduced.

DUJANA.

Area, 100 square miles; population, 25,485; approximate revenue above Rs. ¾ lakh; army and police, 122; Nawab Muhammad Khurshaid Ali Khan, Bahadur, C.B.E., Pathan; aged 36; has a male heir; tribute, 50; cavalry on requirement.

39. The Nawab, who has received a C.B.E. for the excellent recruiting services of the State, administered the State himself.

VI.—STATES UNDER THE POLITICAL CONTROL OF THE SUPERINTENDENT, HILL STATES, SIMLA.

40. The chief particulars of these States are given in the following table:—

No.	State.	Area in square miles, including feudatories.	Population in 1911.	Approximate revenue.	Tribute.	Name of Chief.	Race.	Age.	Title.	Whether male heir or not.	Military forces and police.	REMARKS.
				Rs.	Rs.							
1	Bilaspur ...	448	93,107	3,33,425	8,000	Sir Bijai Chand, K.C.I.E., C.S.I.	Rajput	47	Raja	Yes	204	Permanent salute, 11 guns.
2	Bashahr ...	3,820	88,957	1,44,442	3,945	Padam Singh ...	Do.	46	Do. ...	Yes	13	Personal salute, 9 guns.
3	Nalagarh ...	256	49,230	1,57,460	5,000	Jogindar Singh ...	Do.	50	Do. ...	No	48	
4	Keonthal ...	116	25,354	1,00,971	...	Hamendar Sen ...	Do.	15	Do. ...	No	36	
5	Baghal ...	124	26,008	68,976	3,600	Bikram Singh ..	Do.	27	Do. ...	Yes	25	
6	Jubbal ...	288	23,627	1,98,063	2,520	Bhagat Chand ...	Do.	31	Raja ...	Yes	19	
7	Bhagat ...	36	8,797	50,000	..	Durga Singh ...	Do.	19	Rana ...	No	43	
8	Kumharsain	90	12,219	30,000	2,000	Vidyadhar Singh ...	Do.	25	Do. ...	No	7	
9	Bhajji ...	96	14,972	33,504	1,440	Bir Pal ...	Do.	14	Do. ...	No	32	
10	Mailog ...	43	8,663	37,783	1,440	Durga Chand ...	Do.	22	Thakur	No	16	
11	Balsan ...	51	6,225	18,500	1,080	Attar Singh ...	Do.	52	Rana ...	No	...	
12	Dhami ...	26	4,484	30,000	360	Dalip Singh ...	Do.	12	Do. ...	Yes	25	
13	Kothar ..	20	4,016	17,000	1,000	Jagjit Chand ...	Do.	33	Do. ..	Yes	8	
14	Kunihar ...	80	2,208	6,000	180	Hardeo Singh ...	Do.	22	Thakur	No	9	
15	Mangal ...	12	1,267	1,000	72	Shib Singh ...	Do.	32	Rana ..	Yes	...	
16	Bija ...	4	1,064	5,000	124	Puran Chand ...	Do.	24	Thakur	Yes	8	
17	Darkoti ...	8	521	7,000	...	Raghunath Singh ...	Do.	36	Rana ...	Yes	...	
18	Taroch ...	67	4,493	50,000	288	Surat Singh ...	Do.	33	Thakur	Yes	...	
19	Sangri ...	16	3,022	5,715	...	Hira Singh ...	Do.	69	Rai ...	Yes	...	
20	Kaneti ...	19	2,854	8,590	...	Amog Chand ...	Do.	29	Thakur	No	...	Tributaries of Bashahr.
21	Delath ...	42	1,392	2,743	...	Narindar Singh ...	Do.	70	Do.	Yes	...	
22	Koti ...	50	8,265	44,151	..	Raghbir Chand ...	Do.	60	Rana ...	Yes	56	Tributaries of Keonthal.
23	Theog ...	144	6,345	14,591	...	Padam Chand ..	Do.	34	Thakur	Yes	8	
24	Madhan ...	9	3,961	5,500	...	Randhir Chand ...	Do.	33	Do.	No	6	
25	Ghund ...	28	1,857	5,610	...	Ranjit Singh ...	Do.	37	Do.	Yes	...	
26	Ratesh ...	12	472	700	...	Hira Singh ...	Do.	52	Do.	Yes	...	
27	Rawin ...	7	749	4,591	...	Kidar Singh ...	Do.	43	Do.	Yes	...	Tributaries of Jubbal.
28	Dhadi ...	25	244	1,600	...	Dharm Singh ...	Do.	31	Do.	Yes	...	

41. The administration of the State proceeded smoothly throughout the year. His Highness the Raja paid his customary visit to Simla in September.

Bilaspur.

His Honour the Lieutenant-Governor visited Bilaspur State in October and saw the site of the projected Bhakra dam. The questions of compensation to the proprietors for expropriation and to the Raja for transfer of proprietary jurisdictional rights are still under consideration. His Highness received the rank of Captain in the Army in recognition of his war services, and the commission was handed to him at Bilaspur by the Lieutenant-Governor.

42. In recognition of his loyal services and personal efforts to obtain recruits from his State and subscriptions for the War Loans, which resulted so successfully, Raja Padam Singh has been granted the honour of a personal salute of 9 guns.

Bashahr.

43. The unrest which culminated last year in a rebellion has subsided and a number of prisoners were released by the Raja in connection with the Royal Proclamation of December 1919. The remainder were released on the King-Emperor's birthday. Land and forest settlements of the hill tracts are in progress.

Nalagarh.

44. The Raja continued to attend the Aitchison College, Lahore. The administration of the State throughout the year was uneventful.

Keonthal.

45. Lala Raghbir Singh was appointed manager in succession to the late Rai Bahadur Mian Durga Singh. His task has been a hard one, as the Raja shows no signs of an increasing sense of responsibility.

Bhagal.

46. During the winter the Raja made an extensive tour in Southern India and Ceylon.

Jubbal.

He invested six lakhs in the Victory Loan.

47. Owing to serious financial mismanagement in the State, as the result of an inquiry, it was found necessary to dispense with the services as manager of Rai Sahib Kanwar Amar Singh, the uncle of the Rana.

Baghat.

Kumharsain.

48. The Rana, having proved himself a capable administrator as manager of his own State, has been invested with full powers.

Bija.

49. A regular revenue settlement is in full progress under the Manager of the State.

Darkoti.

50. Rana Raghunath Singh was installed in December.

Koti.

51. Magisterial powers are reported to have been conferred on the Tikka Sahib.

The road between Simla and Mashobra is being widened, and near Sanjauli land is being acquired from the State for the new Simla Cemetery.

Rawin and Dhadi.

52. The financial arrangements connected with the lease of the Rawin and Dhadi forests to the United Provinces Government have recently been under revision by that Government, and, as a result of good management, it has been found possible to offer a substantial increase of lease money.

53. Other States call for no remarks.

Frontier Affairs.

54. The Frontier had only recently resumed normal conditions after the settlement of the Marri and Khetran disturbances of the year before when the outbreak of the Afghan War again created an anxious situation on the Frontier. At the end of May the families of officers were evacuated from Fort Munro, and a few days later it became necessary to despatch Police reserves to Vehoa, supplemented by a detachment of mounted men from the northern *Tumans* and later by Police reserves from Multan and Muzaffargarh. Finally, troops were sent from Multan to Vehoa and Mangrotha, arriving on June 17th. At this stage the position was further complicated by an attack at Barkhan in the Loralai district of Baluchistan by a gang led by S. Bakhtiar Khan and S. Shah Ghazi Khan, Khetrans, upon Shah Pasand Khan and other members of his family. The apprehensions that this might lead to serious developments were fortunately not realised, and about a month later S. Shah Ghazi Khan

surrendered to the Mazari Chief and was sent to Quetta. A body of Suleman Khel Powindahs and Waziris, having burnt Chittarwatta post on the 16th July, attacked Vehoa two days later. They succeeded in looting a number of houses on the outskirts of the village, eventually retreating with considerable booty in the shape of livestock. A subsequent attack on the village on July 24th was driven off. Reinforcements were, however, despatched from Multan to Vehoa and Mangrotha.

55. On the 9th August a large gang, which had attacked Drug in Musa Khel, attempted to pass through to the plains of Dera Ghazi Khan, but the Buzdars and the Kaisranis offered a bold front to the raiders, refused to let them pass, and subsequently pursued the retreating gang, recovering some of the looted property though suffering some loss in men and considerable loss in property themselves. For this loyal defence a reward of Rs. 5,500 has been sanctioned for the two tribes. On the 17th August Sheranis attacked Kotani and Mithewali villages. The Kotani section managed to escape with its booty, but the larger body of about 70 men was intercepted by the troops and Levy from Vehoa. They lost about 25 men killed and 15 prisoners, and most of the looted property was recovered. No further incident of importance took place, but as precautions troops were despatched to Fort Munro for the sessions of the Jirga and 150 rifles were distributed to the Kaisranis and Buzdars. The troops have since been gradually withdrawn. Towards the close of the year the wounding of a Gurchani by Marris led to reprisals, and there was a possibility of a general outbreak, but negotiations for a settlement by Jirga are proceeding.

56. The Nasir Khel came down according to custom, but none of the usual encampments of Suleman Khel made their appearance in the plains, probably from fear of reprisals from the Buzdars and Kaisranis.

57. Influenza and small-pox broke out in the Buzdar hills during the winter. A sum of Rs. 1,500 was granted from the Imperial Relief Fund, and has been spent on the provision of warm clothing and other relief. The hill population suffered from the prevailing scarcity, but have been able to tide over their difficulties by the sale at high prices of large numbers of goats and sheep to traders, purchasing for the supply of meat to the Army. It

was, however, found necessary to distribute over Rs. 15,000 in *taccavi*.

9.—Condition of the people.

58. The year proved to be an exceptionally healthy one, and, apart from outbreaks of cholera and small-pox, the absence of epidemics was remarkable. There was no recrudescence of influenza, which worked such appalling havoc in the previous year; while the fever mortality was little in excess of the average of the last half century. The birth-rate, although rather higher than that of the previous twelve months, was below the quinquennial average. The decline is in effect the sequel to the influenza epidemic of 1918. Births were, however, more than a quarter of a million in excess of deaths.

59. The spring harvest of 1919 was below normal, and the autumn harvest about normal. Prices, although ruling high, were not maintained at the level of the previous year, partly owing to restrictions on free export and partly owing to the character of the harvests. The agricultural community on the whole enjoyed another prosperous year, as did the commercial classes who were assisted at the close of the year by a rising exchange. There was the usual unsatisfied demand on all sides for labour.

CHAPTER II.

Administration of the Land.

Detailed information on the subjects dealt with in this Chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Realization of the Revenue— Reverue Surveys and Settlements—	Report on the Land Revenue Administration of the Punjab for the year ending 30th September 1919.

Professional Surveys.—General Report on the Operations of the Survey of India for the year ending 30th September 1919.

Waste Lands and Government Estates.	1. Annual report on the Punjab Colonies for the year ending 30th September 1919.
	2. Report on the Land Revenue Administration of the Punjab for the year ending 30th September 1919.

Wards' Estates.—Report on the Administration of Estates under the Court of Wards in the Punjab for the year ending 30th September 1919.

Revenue and Rent-paying Classes.—Report on the Land Revenue Administration of the Punjab for the year ending 30th September 1919.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Agricultural Statistics of India, Volume I.

Area Totals—Table 1-J.	Transfers of Land—Table 6-H.
Classification of Area—Table 2-I.	
Incidence of Land Revenue—Table 5-I.	Changes in Boundaries—Appendix B.

10.—Realization of the Revenue.

FIXED LAND REVENUE.

Demand and Collection.

60. The fixed land revenue demand rose from Rs. 235·07 to Rs. 236·61 lakhs, of which 91·4 per cent. was collected. The revenue suspended during the year—Rs. 22 36 lakhs — is considerably larger than in any year since 1907-08, the districts of Gurgaon and Rohtak accounting for more than one-half of this amount. A number of villages were granted

a partial remission of their land revenue as a reward for recruiting services. The balance of land revenue (other than that suspended or remitted) outstanding at the close of the year amounted to only Rs. 11,000.

Riverain action.

61. Owing to scanty monsoon rainfall there were few destructive floods in the rivers, and riverain action resulted in a net increase in the cultivated area. The total assessable area of the Province was this year increased by 4,454 acres; while the net loss in the fixed land revenue roll was less than Rs. 10,000.

Fluctuating Land Revenue.

Demand and Collection.

62. Collection of fluctuating land revenue declined by Rs. 11⅓ lakhs to Rs. 133·38 lakhs. The decrease was due to the generally unfavourable agricultural conditions of the year and shortage of water in the inundation canals occasioned by the low supply in rivers. The Multan Division alone accounts for over Rs. 8 lakhs. The outstanding balance of fluctuating revenue was only Rs. 22,000.

Other Land Revenue.

Rents and Sales.

63. Collections of "other land revenue" show a net increase of nearly Rs. 6 lakhs, thanks to the extensive sale of proprietary rights in Government estates and the enhanced realizations from sale proceeds of waste lands. The inflation is partly attributable to the introduction on the Lower Bari Doab Canal of a differential scale of *malikana* on lands leased for temporary cultivation varying from Rs. 2 to Rs. 16 in lieu of the old flat rate of Re. 1 per acre. Royalties on *kankar*, stone, and coal advanced by Rs. 14,000 to Rs. 52,000. The uncollected balance at the close of the year amounted to Rs. 73,000.

Miscellaneous.

Coercive processes.

64. In spite of agricultural adversities the number of coercive processes fell from 11,434 to 9,597. These processes were issued for arrears amounting to Rs. 7·72 lakhs, out of which 95 per cent. were collected. There were three cases of imprisonment and only four of actual attachment of immovable property. As usual the Multan Division figured most prominently, but the district with the largest number of actual attachments in cases of distraint was Gujranwala.

Postal Process Service.

65. Although the system of serving through the post revenue processes other than those for the recovery of land revenue has met with success it cannot be said that it has resulted in any reduction in the number of tahsil peons; indeed, a few additional process-servers were employed in six districts for short periods to recover land revenue. The system is not favourably reported on in the Gujranwala District, which may be due to passive resistance to the introduction of the change and also to the fact that its working has been hampered by village postmen learning and adopting the methods of the process-server. In Dera Ghazi Khan the parties concerned are prone to evade service. The courts were, however, instructed to treat such evasions, in the absence of special circumstances, as if service had been effected. It is said that the advantage of the ordinary system over that of the postal system is that in the case of the former the party to be served is told by the process-server what the contents of the notice are ; while, in the case of the latter, he has, if illiterate, to get it read to him by some one. These difficulties, however, are not insurmountable.

Methods of payment.

66. The payment of revenue through the post in currency notes or by money-orders has grown further in popularity, especially with small or distant remitters in districts where communications are bad. Rs. 7·9 lakhs were remitted in notes in 24 districts as against Rs. 3·5 lakhs in 12 districts in the last year. Revenue paid by money-orders amounted to nearly Rs. 19 lakhs in 25 districts. The remittance of revenue by currency notes will extend with the general recognition that it combines economy with practical safety.

Girdawari by appraisement.

67. The system of *girdawari* or crop survey by appraisement, if theoretically more satisfactory than the existing method, is found to be full of difficulties. The trained eye and deliberate judgment required to estimate the outturn of a field with any degree of accuracy are not found in the average patwari and the system after trial for four harvests in certain selected areas has been abandoned. In the preparation of crop forecasts, which were purely conjectural, better use is now made of the special knowledge of the officers of the Agricultural Department.

Board of Economic Enquiry.

68. An important feature of the year was the formation of the Board of Economic Enquiry for the scientific study of economic problems of the Province. The Board, as constituted, is divided into two branches: one will investigate rural problems such as the economic holding, the consolidation of holdings, agricultural indebtedness, the transfer and value of land and the incidents of tenancies; the other will deal with urban problems such as the housing of the poor, infantile mortality, prices of food and wages. The branches will work in co-ordination and when necessary hold joint sessions. A grant of Rs. 20,000 has been made to the Board for research work and publication of the results of its enquiries.

Reform Scheme Statistics.

69. In order to supply figures required by the Franchise Committee constituted in connection with the Reforms Scheme, statistics were collected during the year from all districts of the number of land-owners in each district paying not less than Rs. 20 per annum of land revenue and also of all village headmen. Revenue-payers were divided into six grades and lambardars into three grades, according to the amount of land revenue they paid. Females and minors (in this case adult males of not less than 21 years of age) were excluded from the figures. As far as practicable no land-owner or village headman was counted more than once in the same district. The statistics show that the number of land-owners who pay not less than Rs. 20 per annum in land revenue by Divisions are—

Ambala	60,045
Jullundur	71,869
Lahore	86,312
Rawalpindi	34,421
Multan	64,891

or a total for the whole Province of only 317,538, equal to less than 10 per cent. of the grand total 3,954,317 of all land-owners (including minors, females and land-owners counted more than once). This result brings out vividly the extent to which the Province is one of small peasant proprietors.

The divisional statistics of lambardars or headmen give for—

Ambala	...	...	...	14,731
Jullundur	...	...	...	12,568
Lahore	...	...	...	15,978
Rawalpindi	...	...	...	9,777
Multan	...	...	...	9,169

or a total for the Province of 62,223, of whom over one-half pay less than Rs. 25 annual land revenue for the land owned by them.

11.—Professional Surveys.

Surveys of riverain areas.

70. The Punjab Riverain Detachment of the Survey Department continued riverain surveys on the Indus, Sutlej, Chenab and Ravi rivers in connection with the Dera Ghazi Khan, Multan and Muzaffargarh Settlements. Five hundred and fifty-six linear and 611 square miles of main circuits and 3,115 linear and 611 square miles of minor traverses were executed: 944 theodolite stations of the former and 13,003 of the latter in 179 villages were fixed in the area under river action. Corners of 342 squares were demarcated in 982 square miles with permanent mark stones on both banks of the rivers Indus, Sutlej, Chenab and Ravi to serve as bases for the future survey and demarcation of boundaries and fields in the beds of the rivers. Two thousand and thirty-four plotted and 646 boundary large scale mapping sheets and 41 four-inch sheets were traced and supplied to Settlement Officers. Besides these, 436 boundary large scale mapping sheets were partially compiled and 190 miscellaneous traces were prepared, while all the traverse stations marked during the year were plotted on 38 four-inch sheets. Corners of 51 rectangles were demarcated with pegs in 22 square miles forming 46 blocks; and 176 stations were fixed with theodolite and 34 linear miles traversed in 5 riverain villages on the Sutlej in the Mailsi Tahsil of the Multan District.

Town surveys, &c.

71. In the Jhelum town survey 209 stations were fixed with theodolite and were permanently marked with stones, and 23 linear miles were traversed in 1,820 acres. Two plotted sheets on the

scale of 16 inches to a mile were supplied to the Deputy Commissioner of Jhelum. The total expenditure of the detachment during the year was Rs. 1·17 lakhs.

Topographical survey operations were continued under No. 1 Party (Northern Circle) of the Survey of India which surveyed an area of 1·68 square miles of Lahore City, Railway Station and part of Anarkali, and 0·51 square mile of Ferozepore City and City Railway Station on the scale of 16 inches to one mile for the purpose of Town Guide Maps.

Rectangular surveys.

72. Rectangular survey operations in connection with the Sind-Sagar Canal and Colonization project were continued by the Sind-Sagar Party, with the assistance of a revenue-staff of Tahsildars, Naib-Tahsildars, kanungoes and patwaris deputed for service with the Party. From the temporary marks fixed by triangulation in field season 1917-18 and those fixed by traversing in the field season under report 1,920 four thousand-acre corners and (in some cases) two thousand-acre corners forming 1,342 four thousand-acre rectangles (partial and complete) were located on the ground over an approximate area of 7,863 square miles in the Mianwali, Shahpur, Muzaffargarh and Jhang Districts; while 623 four thousand-acre rectangles (partial and complete) were broken into 23,324 hundred-acre rectangles over an area of 3,644 square miles in the Mianwali, Shahpur and Jhang Districts, leaving 719 four thousand-acre rectangles (partial and complete) for hundred-acre sub-demarcation to be undertaken next field season. Traversing for laying out temporary marks near the two thousand and four thousand-acre corners which were used subsequently in the location of these corners was also carried out by the Party in a strip of thickly wooded country along the western edge of the Thal in the Muzaffargarh District (in which triangulation was impracticable) up to a total length of 280 linear miles extending over an approximate area of 405 square miles.

73. Revisionary precise levelling was carried out by the Survey Department for a distance of 56 miles from the Pathankot-Palampur Road to the Chambi bridge and thence by the bridle road *viâ* the Kotwali and Macleod Ganj Bazars to Dharamkot Hill (Dharmsala).

Boundary delimitation.

74. There was no important alteration in district boundaries during the year dealt with in the Land Revenue Report (ending 30th September). No boundary disputes arose except in the case of two villages of the Multan District and Bahawalpur State, where an amicable settlement is anticipated. Boundary pillars between the Pathankot Tahsil of the Gurdaspur District and the Basohli Tahsil of the Jammu State were erected during the year.

12.—Revenue Surveys and Settlement.

Settlements commenced and in progress.

75. There were again four settlements in progress during the year. In Ambala the announcement and distribution of the new assessments in both the headquarters and Naraingarh Tahsil (with the exception of the Morni Hill Tract) was well received. In the Multan settlement operations commenced in the Multan, Shujabad, and Lodhran Tahsils at the beginning of the year, but owing to the late arrival of the full staff and a serious outbreak of influenza measurement work was somewhat retarded. In the Lyallpur District the remeasurement of 27 estates, situated in the Upper Chenab Canal Colony, the greater part of the area of which had been allotted, was begun for the purpose of preparing a Record-of-Rights. The work has been completed in 15 estates. In the Dipalpur and Pakpattan Tahsils of the Montgomery District and in the Sirsa Tahsil of the Hissar District, where settlement operations were due to begin in October 1919, scrutiny of the current *jamabandis*, the writing-up of mutations, and the checking of existing field maps were undertaken by an advance settlement staff during the year.

Final Settlement Report.

76. The orders of Government were passed on the Final Settlement Report of the tract in the Shahpur District lying outside the irrigation limits of the Lower Jhelum Canal. In the Thal and Mohar circles of the Khushab Tahsil the term of settlement has been fixed for 15 years subject to revision in any estate which may receive earlier irrigation from the Sind-Sagar-Canal. Should this canal not be constructed within the term of settlement now sanctioned the question of extending this term will be reconsidered for this

circle. In the rest of the tract under settlement the term will be 30 years.

Settlements completed.

77. The Kangra Settlement came to an end during the year. The assessment reports of the Jagadhri Tahsil and of the Morni tract of the Naraingarh Tahsil of the Ambala District, of the Kabirwala Tahsil of the Multan District, and of the Jampur and Rajanpur Tahsils of the Dera Ghazi Khan District were received and orders passed on all of them.

Re-settlements.

78. The forecast reports of the Muzaffargarh District and of the 527 villages on the Jhang Branch, Circles I, II and III, and on the Gugera Branch, Circle I, in the Lyallpur District, and of the tract irrigated by the Lower Jhelum Canal in the Shahpur District were received. Chiefly owing to their pre-eminent war services the term of settlement of the Jhelum and Rawalpindi Districts has been extended by ten years; while that of the Talagang Tahsil has been extended so as to expire simultaneously with the settlement of the Attock Tahsil in Rabi 1925.

13.—Land Records.

Patwaris.

79. The conduct and efficiency of the patwaris is in general reported to have been satisfactory, and there was a decrease in the total number of punishments awarded as compared with the preceding year. It is creditable to the patwari staff that the land record work of the Province should be done as well as it is, considering the very limited supervision which it has been possible for superior officers to afford during the last few years. The number of dismissals was 117 or 1·4 per cent. of the total strength. Promotions to superior posts (in addition to advancement to the post of settlement kanungo) numbered 55. The attractions of the service should be increased now that Government has undertaken the responsibility for providing gradually and maintaining accommodation for the patwari and his office throughout the Province. The experiment of the amalgamation of canal and revenue patwaris was tried for several years in selected colony villages in the Lyallpur and Shahpur Districts, but it did not achieve sufficient success to justify its extension and has been abandoned.

Kanungos.

80. The Deputy Commissioners, who have reported on the work of their kanungos, consider it to be fairly satisfactory, but many district officers have made no remarks about the efficiency or otherwise of the field and office kanungo staff. The reports on the work of the district kanungos are favourable for all districts except one. Only 9 kanungos were promoted to superior posts during the year as against 13 in the preceding year.

Accessibility of revenue records.

81. The scheme of appointing a special kanungo for making the contents of revenue records more readily accessible to litigants in Civil Courts has worked satisfactorily in most districts of the Province; and a proposal to extend the scheme to Revenue Courts is under the consideration of the Financial Commissioners.

State of records.

82. Measurement work has been entirely completed in the Mailsi and Kabirwala Tahsils and all the new records filed. In the other three tahsils the proivsional programme has been outstripped, and at the end of the year the new records of 409 villages with connected papers had been filed. The riverain survey of the Chenab and Sutlej was completed and recordsprepared on the data supplied by the Survey Department. Measurement work in the Dera Ghazi Khan District was concluded with the completion of measurement work in the Jampur and Rajanpur Tahsils. The new records of the Sanghar and Dera Ghazi Khan Tahsils were completed and filed, while in the other two tahsils they were nearing completion. The hill torrent records of Sanghar have been completed, and those of the Dera Tahsil are being finally attested.

14.—Waste Land and Government Estates.

The Lower Jhelum Colony.

83. The year was one of agricultural prosperity for the Lower Jhelum colonists who were favoured with abundant water, good yield and high prices for their wheat and cotton. The area under cotton, which is the main *kharif* staple in the colony, was nearly 30 per cent. more than in the previous year. A beginning was made in the resumption of tree-planting grants for breach of conditions, the land being transferred to the District Board, which becomes liable for the maintenance of the roadside trees and plantations.

84. Over 1,400 acres were allotted, more than half of this area being devoted to exchanges of certain landed gentry grants originally given in the Lower Bari Doab Colony. In view of the serious deficit of good land in the Lower Bari Doab Colony the policy of reducing the pressure there by the utilisation of Crown lands elsewhere is being steadily pursued, and it is proposed to allot to soldier grantees of the Rawalpindi Division 10,000 acres of unirrigated land in the Khushab Tahsil *in lieu* of 5,000 acres of irrigated land in the Montgomery District. A scheme to take over from the Military Department the lands to be released from camel-browsing in Rakhs Dhrema and Risala on the extension of irrigation in consequence of the remodelling of the Lower Jhelum Canal is also under consideration.

85. The notified area towns continue to flourish, and all, with the exception of Phularwan, have adopted a terminal tax. Town sites fetched very high prices, competition being stimulated by the general desire to find a safe investment for increased wealth. Forty-five-and-a-half mares and horses on horse-breeding conditions including squares of grants were sold for over Rs. 2·34 lakhs or an average of Rs. 5,160 per square.

The Lower Bari Doab Colony.

86. In the Lower Bari Doab Colony the year was one of substantial progress. The total area sown rose from 540,757 to 632,898 acres and the percentage of failed crops decreased from 10 to under 9 on permanently-allotted lands and from 25 to 16 on those given out for temporary cultivation. The growth in popularity of American cotton is striking: the area under this crop, namely, 192·865 acres, having more than doubled in two years. It is possible that there is really some difficulty in its manipulation, and that country cotton will retain its popularity for use in the cottage, but it is curious to read that Punjab 11 wheat is, like American cotton, grown for export alone, being considered indigestible for home consumption.

87. Temporary cultivation (which though eagerly sought after for its profits, is a source of considerable embarrassment to the staff) has continued to bulk largely in the economy of the colony. Occasion was consequently taken to classify the various areas available for such cultivation, and in lieu of the old flat rate of Re. 1 per acre *malikana*, which prevailed there as in permanent allot-

ments, the imposition of a differential scale of *malikana* varying from Rs. 2 to Rs. 16 per acre was sanctioned. A very large increase of revenue will result from this change.

88. The amenities of life in the colony are increasing. Progress has been made in sinking drinking wells in the villages. Twenty-five new primary schools were started during the year and it is contemplated to open 44 new post offices and 4 telegraph offices. The construction of the three hospitals at Chichawatni Road, Mian Chanun, and Khanewal has progressed, but the policy of starting itinerating hospitals has not yet been put in operation.

89. The prices obtained for the sale of town sites are as remarkable as those of agricultural land; and a few new town shops in Montgomery yielded over Rs. 5 lakhs per acre. The Lieutenant-Governor visited all the *mandis* of the colony and was much impressed by the quality of the buildings erected and the busy air of prosperity that prevails. Arrangements for the improvement of the train services on the chord line and to Mian Chanun have been recently sanctioned by the Agent of the North-Western Railway. The ginning factory sites sold under special conditions at prices below market rates were distributed among as many different interests as possible (including the Japan Trading Co.) in order to minimise risks of the formation of a ring against the producers. Most of them are now in working order, and are by no means in excess of requirements.

The Upper Chenab Colony.

90. The Upper Chenab Colony, though progressing, is still far from prosperous. The policy of doubling the area of the grants in tracts receiving irrigation in one harvest only and of encouraging the sinking of wells for winter irrigation is meeting with visible success. *Takavi* advances for well sinking were made on a large and liberal scale, but progress has been hampered by lack of wagons to carry coal from Bengal. Possibly, the Financial Commissioner's scheme of granting land to two contractors who have in return engaged to supply bricks at a reduced rate may accelerate the sinking of wells.

91. The disappointed Jhelum grantees have not made a good class of colonists, nor have they been able to get a good

class of tenants. The cultivated area has slightly increased, but the same apathy is displayed in house-building. The creation of the new Sheikhupura District under a Deputy Commissioner, who has time to attend to this part of his charge, and the inclusion in the district of the Lyallpur portion of the colony should be to the benefit of the whole colony.

The Upper Jhelum Colony.

92. The area let out on temporary cultivation went up from 4,225 acres in 1917-18 to 10,956 acres in 1918-19. The market at Baha-ud-Din is thriving.

15.—Wards Estates.

Management.

93. One estate was released and six were taken under management by the Court of Wards, the total number of estates under superintendence at the end of the year being 45. The Manauli Estate was released, but had at once to be replaced in charge of the court because the ward had entered upon a course of wasteful extravagance likely to dissipate his property. The estate had been under management since 1909, with the result that besides clearing off a debt of Rs. 50,000 another ½ lakh was invested in permanent improvements and nearly 2 lakhs in securities.

Finance.

94. Investments in Government securities show a decline from Rs. 5·63 lakhs—the exceptionally high figures of the previous year—to Rs. ·63 lakh in the year under report. Very little was spent on the purchase of land and nothing on that of house property. High prices tended to discourage investments in these directions. The amount invested in the repayment of debts also decreased from Rs. 5·30 lakhs to Rs. 1·64 lakhs. On the other hand, the balance in the treasuries shows a rise from Rs. 4·77 lakhs in 1917-18 to Rs. 9·04 lakhs in the year under report. The amount spent on permanent improvements shows a satisfactory increase from Rs. 1·09 lakhs to Rs. 1·68 lakhs. It includes a sum of nearly Rs. 98,000 spent by the Mamdot Estate on a tube well, up-to-date stables, residential houses and half a dozen ordinary irrigation wells. The same estate spent Rs. 20,111 on arboricultural operations, planting 500 miles of road and canal bank with trees. In the Guru Har Sahai and Luddan Estates, also, arboriculture is reported to be flourishing.

Rents.

95. Recoverable rent in arrears amounted to Rs. 2 lakhs as against Rs. 1·71 lakhs last year. The outstanding amounts were heavy in Arnauli, Manauli, Kotaha and Atari. The majority of the estates under the Court of Wards rely on cash rents, a system which has the advantages of simplicity and easy management, while it deprives the estate owner, or the Court of Wards (his trustee), of a direct incentive to introducing improved agricultural methods, and also of the benefit of rising prices. The District reports show that in those estates where the system of cash rents is not in vogue the income from kind rents exhibited a marked rise on account of the prevailing high prices.

Education.

96. The education of wards and their relatives is proceeding on sound lines. At present 15 wards and 8 relatives of other wards receive instruction in the Aitchison Chiefs' College. Three wards received training in the Punjab Agricultural College, Lyallpur. Both Principals reported favourably regarding the progress made.

The Sardar of Kot Fateh Khan, who had taken an active interest in recruiting among his tenants, was granted a King's Commission and is making good progress at Sandhurst.

16.—Revenue and Rent-paying Classes.

General.

97. The total area of the Province, according to the entries in the latest revenue records, is 56,269,000 acres. The figures for cultivated area show an increase of 149,000 acres over the area of nearly 29 million acres shown in Statement III of last year's Land Revenue Report. The chief contributors are Gujrat, Montgomery, Lyallpur, Lahore, and Dera Ghazi Khan. The cultivated area under mortgage shows an increase of 36,060 acres, and the percentage of this area to the total cultivated remains at 10·9.

Loans under the Land Improvements Loans Act, XIX of 1883.

98. The amounts advanced for land improvements rose from a little less than Rs. 77,000 to Rs. 1,80,000. As was the case last year, except for the construction of embankments in a few districts, *taccavi* loans were taken practically in all cases for the repairs or construction of wells. Although there has been a considerable increase in

the amount advanced during the year as compared with the previous year, a number of causes mainly due to the war, such as large remittances from men on military service, the continued high prices of material and the dearness and scarcity of labour, have operated to restrict the demand for loans. But there is also no doubt that the increasing prosperity of the agricultural classes makes it more and more easy for them to finance their own agricultural improvements. The increase is, therefore, considered satisfactory, and it is hoped that the measures recently adopted for making these loans more popular, whereby applications are received and disbursements made by officers whilst on tour, will result in an even greater demand next year.

Loans under the Agriculturists' Loans Act, XII of 1884.

99. The amount advanced under this Act rose from Rs. 3·1 lakhs to Rs. 8·9 lakhs. The large amount advanced in loans is due to the failure of the monsoon in 1918 with a consequent bad *kharif* and poor *rabi*. There was great scarcity of fodder during the year and large sums were advanced for its purchase, while for the import from canal-irrigated districts concession rates in railway freight were granted to a number of districts. Further, with good rains in the earlier part of the monsoon season of 1919 there arose a considerable demand for advances for seed and for purchase of cattle to replace those that had died or were sold in the period of fodder scarcity, two consecutive inferior harvests having caused a heavy drain on the resources of the zamindars. The demand for loans was heaviest in the south-eastern and south-western districts—Gurgaon (Rs. 1,40,000), Muzaffargarh (Rs. 1,35,000), Multan (Rs. 1,01,000), Rohtak (Rs. 84,000) and Dera Ghazi Khan (Rs. 66,000), accounting for nearly one-half of the total amount advanced. Advances were also heavy in Montgomery (Rs. 61,780), these being made both in the area outside the irrigation limits of the Lower Bari Doab Canal and in the Lower Bari Doab Canal Colony.

Transfers.

100. The cultivated area (ownership) sold during the year was 142,169 acres, while the sales of uncultivated land (ownership) reach almost the same area as last year, *viz.*, 71,796 acres. Nearly the whole increase of 42,000 acres in the cultivated area sold was in the Montgomery and Multan Districts owing to sales of proprietary rights in Government land to colonists

and Crown tenants. The cultivated (ownership) area reported as redeemed (including areas redeemed but re-mortgaged) was 261,920 acres against 200,855 acres in the preceding year, and the mortgage debt discharged was Rs. 216·03 lakhs, an increase of 39 lakhs over last year's figures. The improvement is most marked in the case of the Multan, Hissar, Rohtak, and Mianwali Districts, where it is ascribed to the general rise in the money value of agricultural land, enabling mortgagors to redeem old mortgages by re-mortgages of small areas. In other districts the profits due to high prices of agricultural staples or the savings of men on military service are cited as causes. The enquiry referred to in the two previous years' reports regarding the continued decrease in the area reported as redeemed during the quadrennium concluding with 1917 goes to show that the causes operating in various ways to discourage redemption were temporary and due to the war. The financial stringency caused by the banking crisis in the Punjab in 1913-14 was succeeded by a certain degree of distrust as to the ultimate issue of the war, resulting in a lock-up of cash which the figures of the year under report show to have terminated. The cultivated area (ownership) mortgaged during the year was 210,543 acres against 199,779 acres in the previous year. It was less by 51,000 acres than the area reported as redeemed, but the latter area always includes lands redeemed but re-mortgaged; and at the end of the year the total area under mortgage was greater as stated in paragraph 97 above. The mortgage debt redeemed during the year amounted to Rs. 216 lakhs, whereas the mortgage debt freshly incurred by new mortgages or by re-mortgages of redeemed areas amounted to nearly Rs. 311 lakhs. That this great increase in the total mortgage debt is largely due to the great progressive rise in the value of land is borne out by the fact that the mortgage money of the new mortgages and re-mortgages averages Rs. 148 per acre mortgaged; while the mortgage money discharged by redemptions averages only Rs. 82 per acre redeemed.

The area transferred by gifts (as usual chiefly transfers for religious and charitable purposes and transfers to relations) has increased by 5,000 acres to nearly 80,000 acres. The area transferred by exchanges (mainly for consolidation of holdings) was nearly 35,000 acres against 32,000 acres in 1917-18.

Value of land.

101. The average recorded price of cultivated land has fallen from Rs. 252 per acre in the previous year to Rs. 184. The sale of a considerable amount of Government land during the year to Crown tenants in the Sohag Para and Sidhnai Colonies at merely nominal rates assisted in depressing the provincial average sale price. The majority of the districts report a rise in value owing to the continued high prices of agricultural produce. In the Lower Bari Doab Colony the prices realised at the auction sale of agricultural land were unexpectedly high, an area of nearly 8,868 acres being sold at an average price of Rs. 493 per acre; while the highest price realised was Rs. 1,018 per acre for a lot of 25 acres in a village one mile from Khanewal railway station. The sale price for the Province as a whole represents 127 years' purchase of the land revenue assessed as against 171 years' last year. The mortgage value of land, the ownership of which was mortgaged during the year, was Rs. 310·76 lakhs against 329·86 lakhs in 1917-18 and represents 97 times the land revenue assessment of the land against 91 times in the previous year. The average mortgage money per acre on the whole area mortgaged was Rs. 124 against Rs. 140 last year.

Land Alienation Act.

102. During the year the provisions of the Act other than those of section 10 were extended to the Kotgarh tract of the Kot Khai Tahsil of the Simla District and 11 agricultural tribes therein were notified under section 4 in one local group. The Arain tribe was added to the local groups in Kangra proper and in Kulu. Agricultural tribes gained by purchase 41,000 acres net against 9,000 acres in the previous year, but lost by mortgage and redemption taken together 49,000 acres against a previous loss of 28,000 acres. Sales by agricultural tribesmen have increased by 8,000 acres to 154,000 acres, and sales to them have increased from 155,000 acres to 195,000 acres. Sales to "others" show an increase from 34,000 acres to 37,400 acres. The Act continues to be widely appreciated by those whom it was intended to protect.

Rent-paying classes.

103. The number of suits brought for enhancement of rent was 681, of which 570 were successful. The number of suits for reduction of rent has fallen from 28 in 1917-18 to 5 this year.

There were only 11 decrees for ejectment of occupancy tenants under section 39 of the Tenancy Act as against 111 decrees last year. The ejectments of occupancy tenants actually made numbered 15 against 48. There has again been a large decrease in the total number of applications for service of notice of ejectment and of notices of ejectment of tenants-at-will, the aggregate number of ejectments being only 2,838 against 3,992 last year. The chief reasons given for the decrease are bad seasons, the influenza epidemic, the disturbances, scarcity of tenants, and enlistments in the Army. A marked scarcity of tenants in other parts of the Montgomery District is attributed to emigration to the Lower Bari Doab Colony.

MISCELLANEOUS.

Punjab Land Preservation (Chos) Act.

104. Orders were passed during the year approving the proposal that action under section 5 of the Chos Act should be taken in the Rupar and Kharar Tahsils of the Ambala District and a grant was provided to meet the estimated expenditure on compensation. The appointment of a Naib-Tahsildar to supervise the area notified under section 4 of the Chos Act in these tahsils, and protective and reclamation work undertaken elsewhere in the Rupar Sub-Division, has been sanctioned up to April 1922, while the employment of the existing forester and 6 forest guards has been extended for the same period. The proposal of the Financial Commissioner that a forest officer should, when available, be deputed to report on remedial measures in the Morni ilaqa and the Naraingarh, Jagadhri and Ambala Tahsils has also been approved by Government. The States of Patiala and Nalagarh have been addressed through their Political Agents with a view to securing co-operation in preventive and remedial measures in their adjoining areas. Great efforts have been made to plant grasses in the hill torrent beds in Rupar and Kharar Tahsils with the object of preventing further soil erosion. Plantations made by the Canal Department in the month of March succeeded, whereas a large proportion of those planted by the district staff during the rains failed. In Hoshiarpur the experiments referred to in last year's report were continued in the Maili Cho with varying success. In the Maili village, where the people co-operated whole heartedly, excavation and embankment works were entirely successful in preventing further erosion

and reclaiming some 50 acres. As regards the Hoshiarpur hill areas the improvement in the condition of villages, to which the provisions of section 5 of the Chos Act were applied fifteen years ago, is being maintained. The most gratifying feature is that the villagers now appreciate the financial advantage to be derived from conserving grass and trees and in some cases are of their own accord adopting restrictions on grazing. An allotment of Rs. 5,000 for grants to villages for reclamation of Cho beds in the Ambala and Hoshiarpur Districts was made for the current year.

Descent of Jagirs Act.

105. The number of jagirs notified under the Act remains at 149.

CHAPTER III.
PROTECTION.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Police.—(1) Report on the Police Administration of the Punjab, for the year 1919.

(2) Report on the working of the Criminal Tribes Act for the year 1919.

(3) Report of the Chemical Examiner to Government, Punjab, for the year 1919.

Criminal Justice.—Report on the Administration of Criminal Justice in the Punjab and its Dependencies during the year 1919.

Prisons.—Report on the Administration of the Jails in the Punjab, 1919.

Civil Justice.—Report on the Administration of Civil Justice in the Punjab and its Dependencies during the year 1919.

Registration.—Report on the Administration of the Registration Department of the Punjab for the year 1919.

Legal affairs of Government.—Report on the Administration of Legal Affairs of the Government of the Punjab for the year 1919.

Local Boards Administration.—Report on the Administration and Accounts of the District Boards in the Punjab for the year 1919-20.

Municipal Administration.—Report on the working of Municipalities in the Punjab during the year 1919-20.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Statistical Abstract for British India, Volume IV, Administrative and Judicial (including area, population and local funds).

17.—Legislating Authority during the year 1919-20.

106. The following changes took place amongst the members of the Council :—

(1) His Honour Sir Edward Maclagan took office as President of the Council in place of Sir Michael O'Dwyer, retired.

(2) The Hon'ble Mr. E. A. A. Joseph was nominated in place of Mr. H. D. Craik.

(3) The Hon'ble Mr. B. T. Gibson was nominated in place of Mr. O. F. Lumsden.

(4) The Hon'ble Mr. J. P. Thompson was nominated in place of Mr. L. French.

(5) The Hon'ble Mr. P. J. Fagan was re-nominated on his reversion from the Imperial Legislative Council.

(6) The Hon'ble Pandit Shiv Narain, on his being appointed as Additional Government Advocate, resigned his seat, and on the termination of that appointment was re-nominated.

(7) The Hon'ble Mr. L. French was nominated in place of Mr. J. P. Thompson.

(8) The Hon'ble Mr. W. T. Wright was nominated in place of Mr. J. A. Richey.

(9) The Hon'ble Lieut.-Col. Davidson was nominated in place of Colonel MacWatt, who proceeded on long leave.

(10) The Hon'ble Mr. John Powell was elected in place of Mr. E. W. Parker, deceased.

18.—Course of Legislation during the year 1919-20.

Meetings.

107. Five meetings of the Legislative Council were held during the year under report at the Government House, Lahore (7th April 1919, 10th November 1919, 6th March 1920, 8th March 1920, and 13th March 1920).

Bills passed.

108. The following Bills were introduced and passed in Council during the year :—

(1) The Punjab Customs (Power of Contest) Bill.

(2) The Punjab Limitation (Customs) Bill.

(3) The Bill to amend Colonization of Government Lands (Punjab) Act, 1912.

Resolutions.

109. Out of the seven resolutions concerning—

(1) His Majesty's Proclamation on Reforms,

(2) the appointment of an Indian to the Staff of the Medical College, Lahore,

(3) the status and emoluments of Munsiffs,

(4) the prohibition of sale by auction of liquor licenses for more than one year,

(5) the qualifications for a voter in a Constituency,

(6) the formation of a single Constituency in a district returning two representatives,

(7) the provision of one electorate to return two representatives of Muslim land-owners to the Council or of two equal electorates returning one representative each,

Nos. (1) and (2) were passed; Nos. (3) and (6) were withdrawn; No. (4) negatived; and Nos. (5) and (7) were lost.

Questions.

110. Two hundred-and-three questions were put and answered.

India Acts.

111. No Acts particularly affecting the Punjab were passed by the Imperial Legislative Council during the year.

19.—Police.

General Police Force.

General.

112. The number of true cognizable offences of all kinds dealt with by the Police in 1919 was more by 2,962 or 8 per cent. than in the previous year in which an increase of a half per cent. was shown. Excluding petty offences under local and special laws there were 28,959 true cases as against 25,605 in the previous year—an advance of 13 per cent. on the figures of 1918.

Causes of increased crime.

113. The rising tendency exhibited by the curve of provincial crime towards the end of last year persisted. Many adverse circumstances combined to maintain this tendency. Apart from the inevitable reaction following on the removal of restraints imposed by four years of war and the unsettling effects of demobilization, stock of food-grains were not abundant, and the cost of all the necessaries of life remained at a high level. In addition there was acute political unrest, developing in April into the disturbances which involved the declaration of martial law in certain areas. In circumstances such as these, a record volume of crime might well have resulted, whereas the figures, while

showing a substantial increase over those of the previous year, were still considerably below the pre-war level.

Relations with the public.

114. The co-operation of the public throughout the year, and especially during the disturbances, was acknowledged by cash rewards and grants of land considerably in excess of those given in previous years. On the other hand, failure to realise responsibilities in this connection and connivance at, or active participation in, the disturbances led to an increase of punishments inflicted on village officers, and the location of a large number of punitive posts, of which 47 were in existence at the end of the year. All posts located in consequence of the disturbances were, however, withdrawn by the 1st April 1920.

Murders and *dakaitis*.

115. Murders, which had steadily decreased (with the exception of a slight relapse in 1916) from 625 in 1913 to 508 in 1918 were only one in excess of the latter figure. While the cases in the Lahore District declined from 56 in 1918 to 37 there was a jump from 18 to 31 in the Amritsar District, the latter number including the cases of five Europeans who were done to death during the disturbances. Immorality was, as usual, the most frequent cause of murder. It is, however, satisfactory to note that only three cases originated in infidelity on the part of wives of sepoys absent on service.

There was a marked rise in *dakaitis*, which numbered 130 as compared with 41 in 1918, and included nine border raids in the Dera Ghazi Khan and Mianwali Districts. In the Lahore District, which showed the largest advance, the cases were mostly of a petty nature, and were due to a general spirit of lawlessness engendered by the disturbances. Several *dakaitis* were the work of sepoys from regiments stationed in the neighbourhood.

Burglaries and thefts.

116. Burglaries rose from 12,332 in 1918 to 13,239, an expansion of seven per cent. Similarly, ordinary thefts rose from 5,498 to 6,325 or 15 per cent. Conditions were all in favour of an outbreak in this class of crime, and that these increases were not greater is due to the operation of the *thikri pahra* system and the Habitual Offenders' Act.

Results of police work.

117. In spite of the fact that for some months of the year the political situation largely diverted the attention of the Police and Magistracy from their normal duties, detection and prosecution results showed an improvement. The all-round percentage of cases convicted to true cases was 31·51 as against 28·58 in the previous year; while the percentage of cases and persons convicted to cases and persons tried were 71·60 and 56·62 as compared with 70·33 and 56·91 in 1918.

Preventive measures.

118. During the year 2,250 persons were called upon to furnish security under Section 110 of the Code of Criminal Procedure as compared with 2,270 in 1918; on the other hand, far greater use was made of the Habitual Offenders' Act. The number of persons restricted under this Act at the beginning of 1919 was 228, and 1,406 more were restricted during the year. The *thikri pahra* system of village patrolling, carried out either voluntarily or under the Village Patrol Act, was also utilized with success for the safeguarding of the railways during the disturbances.

Criminal Investigation Department.

119. The Criminal Investigation Department has rendered excellent service to the Administration under circumstances of unusual difficulty, the Political Branch in particular being subjected to exceptional strain. The violent political agitation of the first three months of the year, culminating in the disturbances of April, was followed by the Afghan War, prosecutions before the Martial Law Tribunals, the tours agitators from other Provinces, and the sitting of the Disorders Enquiry Committee. Finally, at the close of the year there were sessions at Amritsar of the National Congress, the Indian Muslim League, the All-India Khilafat Committee, and several other All-India bodies.

In addition to work in connection with the disturbances, the Crimes Branch dealt with a variety of important cases, including recruiting frauds and a forgery of priority certificates.

War measures.

120. At the close of last year 16 persons remained subject to internment under the Ingress Ordinance, to which number one addition was made during the year under review. Similarly, the

number of persons restricted under the Ordinance at the close of 1918 (545) was increased by 20. Under the Defence of India Act the number restricted at the close of 1918 was 76, and 21 fresh restrictions were ordered this year. A revision of the previously existing orders was carried out, which resulted in numerous releases; and by the end of the year, as a result of the amnesty declared by Royal Proclamation in December, all remaining orders had been cancelled.

Finger Print Bureau.

121. During the year the Finger Print Bureau at Phillaur received for search 30,503 references, of which 5,883, or 19·3 per cent., were traced. The corresponding figures for 1918 were 27,469 and 5,332 or 19·5 per cent. The number of finger impression slips on record at the end of the year was 274,714, or 13,528 more than those at the end of 1918.

Internal economy.

122. The scheme for the replacement of enrolled police clerks in the offices of all Deputy Inspectors-General (including the Criminal Investigation Department) and the Railway Police by civilian clerks, and the amalgamation of these establishments with the clerical establishment of the Central Police Office was carried into effect at the close of the year, and promises to fulfil the hopes of increased efficiency based upon it.

Another reform, combining economy and increased efficiency, introduced during the year was the abolition of camel orderly sowars in all districts and their replacement by bicycle orderlies.

Among the proposals made by the Inspector-General for improving the conditions of service in the Punjab Police, those for an increase in pay, various duty allowances for Upper Subordinates, duty allowances for Lance Head Constables, and house rent allowances for Constables have been sanctioned by Government.

Rural Police.

123. Ten zaildars, 278 lambardars, and 178 chowkidars were punished for neglect of their duties in connection with the criminal administration, but the activities of the Rural Police have been of much assistance to the regular force.

CRIMINAL TRIBES.

124. The year 1919 saw a further advance in developing the existing settlements. More men of the wandering as well as the settled criminal tribes were brought into the settlements to be subjected to stricter watch and discipline than is possible in the districts. These tribes were mostly Sansis of Rohtak, Gujranwala and Gujrat, Biloches of Karnal and Jhang, Dhinwars of Gurgaon, Harnis of Ludhiana, Chhemars of Gujrat and Shahpur, and Bangalis of Ambala and Jullundur. New settlements, both industrial and agricultural, were initiated and efforts made generally to improve the conditions of labour and health in all the settlements. Experience has shown that the sudden change from a free open-air life to the restrictions which detention in the industrial settlements necessarily entails at first affects the health of the criminal tribes generally and of the wandering tribes particularly : and the effects are naturally worse in the congested and ill-ventilated atmosphere of factory settlements. Insanitary habits which cannot be reformed with the sudden change of environment are still more responsible for deterioration in the initial stages. But as habits improve, and the tribesmen adapt themselves to systematic work and settlement life, their general condition shows marked improvement.

General.

125. Fresh registrations were comparatively few ; and owing to cancellations, deaths, and transfers to settlements the total number of registered male adults outside settlements fell from 31,473 to 26,939 at the end of the year 1919. The population within the settlements rose from 2,223 male adults, with a total population of 5,901 souls at the end of the year 1918, to 3,560 male adults, with a total population of 8,708 souls.

Number on registers.

126. With a view to adapting the treatment of each individual to the degree of his criminality, revision of the classification of the registered members of the criminal tribes of the Province has been taken in hand, and should result in the total exemption of over 50 per cent. and relaxation of the restrictions on another 10 per cent. of the total population. The rest will remain subject to the full restrictions of Section 12, the worst characters being gradually removed to the Reformatory or Industrial Settlements.

Revision of classification.

Results.

127. The most noticeable results of the enforcement of Act III of 1911 on criminal tribesmen still outside the settlements have been the ostensible adoption by the settled criminal tribesmen (whose main concern was begging and pilfering) of some sort of occupation and the settlement of the nomads, who are beginning to give up their vagrant habits. Transfers to settlements have had a reformatory as well as a deterrent effect, and Pakhiwaras and Baurias of the settled tribes and Bhedkuts and Kuchbands of the wandering tribes are showing marked improvement.

Education.

128. Considerable success has been achieved through these industrial settlements in breaking-in to systematic occupation some of the most hardened criminals to whom work in any form was galling. But in order permanently to divert the younger generation from their hereditary pursuits and qualify them for earning an honest livelihood it will be necessary to establish technical schools under Section 17, Act III of 1911, and initiate such industries in the settlements as weaving, carpentry, smithy, tailoring, shoe-making, masonry, etc.

Settlements.

129. The year opened with 16 settlements and closed with 24. The Luddan Industrial Settlement was closed, but there have been opened three industrial and six agricultural settlements in the course of the year and two industrial and two agricultural settlements since its close. Of these settlements 17 are in charge of the various philanthropic societies, some of whom are evincing a keen interest in the welfare and progress of the inmates, and the rest are under direct Government control.

Convictions.

130. Before 1917 the percentage of total convictions on the total registered male population was 10·8. It fell to 2·3 in 1917 and 1·6 in 1918. This year it has risen to 3·1. The rise is partly due to high prices and partly to gradually tightening control in the districts which has considerably enhanced the risk of detection of crimes that before the enforcement of the Act were committed with impunity.

It is fairly certain that but for the stringent control of the criminal tribes in the Province and the transfer of the more criminally-inclined to settlements, the economic

conditions prevailing throughout the year would have resulted in an increase of crimes generally and burglaries in particular far greater than that shown by the above figures.

Financial.

131. Of a total allotment of Rs. 2·14 lakhs the expenditure amounted to Rs. 1·82 lakhs, of which Rs. ·48 lakhs was initial and the rest recurring. The Amritsar factory and the lease of unoccupied lands in the Lower Bari Doab Canal Colony yielded an income of over Rs. ¼ lakh.

Co-operation of Native States.

132. All the Native States adjoining the Punjab are co-operating in the control and restriction of the criminal tribes of the Province, and most of them are adopting effective measures for the supervision and reformation of tribes belonging to their states. The Patiala Durbar is arranging to open two criminal tribes settlements, for the inauguration of which the services of a trained Superintendent have been temporarily lent by Government.

Recruiting for the Army.

133. The zeal of the criminal tribes for enlistment in the Indian Army has not ended with the war, in the course of which over two thousand were recruited as combatants and non-combatants. Some of these have since been discharged; but during 1919 no less than 392 enlisted, including 143 combatants, of which 85 were Baurias and 31 Bar Tharanas. The Baurias, who had enlisted in the 2/35th Sikhs, have done particularly well.

Chemical Examiner.

General.

134. The number of cases investigated by the Chemical Examiner further decreased from 1,297 in the previous year to 1,076 in 1919. The decrease was in analytical work, and was chiefly due to the small number of articles sent for examination by the Military Department, who now use their own laboratories for this purpose almost exclusively.

Medico-legal cases.

135. On the other hand, the number of medico-legal cases rose from 701 to 799, of which 407 were human-poisoning cases. Opium continued to be the most common form of poison employed, being found in 38·01 per cent. of the detected cases

as against 26·37 due to arsenic. In animal-poisoning arsenic was, as usual, most commonly employed.

20.—Criminal Justice.

General.

136. The number of offences reported during the year was 189,762, as compared with 164,512 in the previous year, an increase of over 15 per cent. Even so, crime is much less than before the war; for in 1914 204,803 cases were reported. This increase, which is shared by almost all districts, is ascribed to—

(1) high prices and scarcity of food and fodder;
(2) reaction from war conditions;
(3) return of bad characters from abroad; and
(4) unrest caused by the disturbances in the spring of 1919, which stimulated the activities of the criminally inclined.

The number of true cases was 118,184, or 63 per cent. of the total number reported, the same percentage as was recorded last year.

Cases brought to trial.

137. The number of cases brought to trial, *i.e.*, true cases less those dealt with under Sections 247 and 259 of the Criminal Procedure Code, was 112,365, involving 264,306 persons as against 98,008 cases and 228,061 persons in the preceding year.

Disposal of cases.

138. The criminal cases disposed of during the year numbered 184,566 as compared with 157,530 in the previous year.

Of the total persons brought to trial 182,012 or 68·9 per cent. were acquitted or discharged, of whom 85,997 or 47·24 per cent. were discharged in consequence of the non-appearance of the complainant or the withdrawal of the complaint.

Persons brought to trial and convicted under the Indian Penal Code.

139. Under the Indian Penal Code reported offences have risen from 113,771 to 131,791, and those admitted to have occurred, including offences reported during (and pending from) the previous year from 68,203 to 79,218. Of 167,495 persons brought to trial under the Indian Penal Code 24,341 or 14·53 per cent. were convicted. Of 26,761 persons brought to trial under the Code whose cases were prosecuted

by the Police 15,153 or 62·3 per cent. were convicted, but of the 140,734 persons tried on private complaints only 9,188 or 6·5 per cent. were convicted.

Serious forms of crime.

140. The number of offences affecting life reported during the year and remaining pending from the previous year was the same as last year, *viz.*, 1,382. Of these 988 were brought to trial, 481 being cases of murder or of dacoity with murder, 107 cases of attempted murder, and 220 cases of culpable homicide.

Murders.

141. The number of persons tried for murder (Sections 302 and 396, Indian Penal Code) was 1,084, of whom 434 were convicted. In all 210 death sentences were pronounced by Sessions Judges subject to confirmation by the High Court.

Of the persons whose cases came before the High Court for confirmation of the death sentences 69 per cent. obtained no reduction of sentence, 8 per cent. were transported for life, 5 per cent. were convicted of lesser offences than murder, and 17 per cent. were acquitted. (In one per cent. of cases appeals abated owing to death.) The High Court passed six death sentences by way of enhancement of the sentences of Lower Courts.

The Lieutenant-Governor commuted the death sentence of six convicts to transportation for life and that of one convict to three years' rigorous imprisonment. The Governor-General in Council commuted the death sentence of seven convicts to transportation for life.

Matrimonial cases.

142. Matrimonial offences have risen from 7,417 to 9,820. The most noticeable increase in such cases occurred in the districts of Ferozepore (467) and Multan (396). Last year a decline was attributed to the popularization of the idea that the worst type of offender is the person who commits an offence against a man on active service, and to the extension of the marriage registration system. From the experience of the year under review it would seem that marriage registration has had no effect on the figures, and that possibly more scandals came to light because more men returned from the army. The succeeding year with its return to more normal conditions should afford more reliable data for forming a judgment.

Punishments.

143. The following table shows the punishments inflicted in 1919 :—

Number of Persons sentenced to				
Death.	Transportation.	Imprisonment.	Fine.	Whipping.
150	181	16,267	36,863	763

Habitual Offenders' Act.

144. During the year 673 offences were reported under the Habitual Offenders' Act, 658 cases with 659 persons being brought to trial. Movements were restricted in 603 cases involving 604 persons.

Miscellaneous.

145. In view of the volume of cognizable crime in the Punjab and of the reluctance of witnesses to come forward the scale of fee prescribed for the two lowest-paid classes of witnesses in criminal cases launched by Government has now been raised from six and four annas to nine and six annas respectively. On the motion of Government rules have been framed for the employment, at Government expense, in the High Court of counsel for the defence of paupers accused of offences punishable with death and certain legal practitioners have been selected for this purpose. These rules came into operation shortly after the close of the year.

21.—Prisons.

Institutions.

146. No changes were effected in the number or constitution of the jails in the Punjab during the year under report. With the cessation of work for the Army the Borstal Camp Jail at Dhariwal was closed; but several lads stayed on as free labourers at the local mills. The Khewra Camp Jail has continued to do good work at the Salt Mines, and the question of building a permanent jail at that station is under consideration, as is also the construction of a fifth Central Jail at Jullundur and of a specially-equipped jail for tuberculosis prisoners at Madhopur.

Recruiting for jail labour in Porter Corps for service in Mesopotamia was, of course, discontinued, but labour has been supplied to the arsenals at Ferozepore and Rawalpindi and to the grass farm at the former station.

Accommodation.

147. The total accommodation was the same as reported last year, *viz.*, 14,687.

Admissions.

148. The number of admissions during the year (19,236) shows an increase of 8,385 or 21·4 per cent. on the previous year's figures. This result is mainly due to the disturbances of April and consequent convictions in Martial Law Courts.

The number of prisoners received by transfer from jails outside the Province (chiefly from the North-West Frontier Province) was 877 against 1,390 in 1918.

Releases by order of Government.

149. Five male prisoners and one female prisoner were ordered to be released on medical grounds and 1,774 for other reasons. The number of releases ordered by Government was as high as 1,780 owing to Peace Day celebrations and the amnesty granted under the Royal Proclamation in December in connection with the April disturbances.

Juveniles and juvenile adults.

150. The number of children under thirteen years of age convicted and sent to jail rose from 47 in 1918 to 62 (including three females). A new hospital and school buildings were added to the Borstal Institution, Lahore, and a Pushtu teacher engaged for the benefit of the Pathans who form a large portion of this Institution's population. Steps are being taken to acquire land for an educational farm for the instruction in modern methods of agriculture and elementary veterinary work of the large number of zamindar boys detained. Three inmates were conditionally released during the year, and 25 others will be similarly released shortly for work in the North-Western Railway Workshops at Moghalpura. Ambulance and first-aid work has been continued with good results, 87 boys being granted certificates for having passed an examination in this work.

Escapes.

151. Of the thirteen escapes only one prisoner escaped from inside the jail. The other escapes took place from extra-mural gangs

including two from Dhariwal Camp Jail and four from military custody whilst at work in the arsenal at Rawalpindi.

Staff.

152. One jailor retired during the year. Enlistment for the warder guard has not been satisfactory although, with the cessation of hostilities, a small influx of recruits began. The low pay offered is no longer attractive.

Discipline.

153. The number of offences was 14,851 against 16,689 in 1918. Thirty-four cases were referred to Judicial Courts, of which 24 related to escapes. While offences relating to work declined it is unsatisfactory to find recorded an increase in offences relating to possession of prohibited articles. Corporal punishments inflicted decreased from 27 in 1918 to 11 in 1919.

Expenditure.

154. The expenditure on guarding and maintenance of prisoners increased from Rs. 14·42 lakhs to 17·14 lakhs, partly by reason of the rise in jail population. The cost per head, however, also advanced from Rs. 102-7-2 to Rs. 113-9-6 owing to the high prices of foodstuffs. The expenditure under establishment increased from Rs. 3·90 lakhs to Rs. 4·42 lakhs, and on buildings from Rs. 1·20 lakhs to Rs. 1·42 lakhs.

Industries.

155. Compared with the previous year the daily average number of convicts sentenced to labour increased from 12,144 to 12,860, and the total cash profits from Rs. 2·83 lakhs to Rs. 4·02 lakhs—an advance which would have been even more substantial but for a decline of over Rs. 1 lakh in the receipts from miscellaneous industries and carpet-making in the Lahore Central Jail. The cash earning per head of those sentenced to labour increased from Rs. 23¼ to Rs. 31¼.

Health.

156. The admissions to hospital decreased by over 3,000, the daily average sick from 698 to 349 and deaths from 857 to 324. The decline in the figures is attributable to the absence of influenza.

The appearance of cholera in the Montgomery Central Jail was marked by four cases with two deaths. There was a decided improvement in the dysentery returns; but malaria admissions exceeded last year's figures by 500. While admissions for tuberculosis rose by 22 to 124, mortality declined from 55 to 42. A very satisfactory decrease in pneumonia

cases is reported, admissions and deaths falling to 249 and 63, respectively. One case of plague occurred in the family of a member of the staff at Rawalpindi District Jail.

22.—Civil Justice.

Institutions.

157. The number of original civil suits instituted in all Courts was 189,109 against 174,408 in the preceding year, the increase including an excess of 10,229 in money suits.

General causes of increase.

158. This expansion, which is by no means unexpected, may be attributed to the termination of the war, to comparatively good harvests, and to the fact that the figures for the year 1918 were exceptionally low, because of the war and the prevalence of influenza.

Suits by bankers and shop-keepers.

159. The total number of suits for money or movable property brought by bankers and shop-keepers against agriculturists rose from 63,300 to 70,325. The increase in the Attock District is reported to be directly traceable to the numerous enlistments from among the agricultural population in the Army. As the sepoys sent or brought home large sums of money creditors hastened to sue to recover their debts. Moreover, it was necessary to file suits in view of the possibility that the debtors might not return to renew their bonds or acknowledgments in the money-lenders' books. The same reasons, doubtless, apply to other good recruiting districts.

Suits for pre-emption.

160. The number of suits to establish a right of pre-emption rose from 4,095 to 4,872, showing an increase of about 19 per cent. against a decrease of 512 in the previous year. Generally, it appears that with increasing prosperity the peasant loses no chance of acquiring more land ; but there are exceptions. Thus in Ferozepore, though the number of registered sales increased by over sixty per cent., suits for pre-emption fell from 303 to 241.

Guardians and Wards Act.

161. Applications for certificates of guardianship of minors or of administration of their property under Act VIII of 1890 rose by 461 to 2,337—an increase due to last year's influenza epidemic. Many children lost their parents, and guardians had to be appointed to safeguard the interests of the

estate. Courts have now been authorised to appoint Official Receivers (with their consent) to be guardians when the adoption of that course is in the minors' interests. Remuneration for such Official Receivers appointed as guardians is fixed at two per cent. on all lease money collected by them.

The accounts relating to minors at Jullundur were reported to be in some confusion, and arrangements were made for a check by the Local Fund Audit Department. The Judges are framing rules for the better maintenance of such accounts and for their periodical audit.

Insolvency Act.

162. There was a marked decrease in the number of applications for a declaration of insolvency. The orders of the High Court, requiring petitioners in insolvency to deposit a fee of Rs. 20 to Rs. 50 at the time of presenting their petitions to cover the cost of issue of the necessary notices, appear to be partly responsible for the welcome decline in the number of these applications. The more frequent resort to the provisions of Section 13 (1) of the Act has also assisted the decline.

Official Receivers in Insolvency.

163. New rules and forms of registers for the upkeep of the accounts of Official Receivers have been introduced. On the recommendation of the Judges, Government agreed to a proposal that of the 5 per cent. payable to Official Receivers as remuneration, 3 per cent. should be payable on the realization, and 2 per cent. on the distribution, of the assets of insolvents' estates.

Value of suits.

164. The value of suits instituted rose from Rs. 390·5 lakhs to Rs. 490·66 and the average value from Rs. 224 to 260.

Disposal and average duration of suits.

165. There were 239,145 regular suits before the Courts, of which 193,490 were disposed of. The average duration of contested suits was 88 days in the year under review and of uncontested suits 47 days. The average duration for all contested causes in the courts of Munsifs was 82 days against 85 days in the previous year. The decline would have been still greater but for the disturbances of April 1919, which for some time brought work to a standstill.

Execution.

166. The total amount realised in execution amounts to Rs. 69·92 lakhs as against Rs. 62·55 lakhs last year. The percentage of realisations was 24 compared with 26 in the previous year. It was highest in Amritsar and lowest in Kangra. In the Gurdaspur District awards in favour of Co-operative Banks which are enforceable as decrees are now executed by special bailiffs appointed for the purpose and paid by the Banks. The District Judge reports that the experiment has proved successful, and that of late no complaints of delay have been made by the Bank authorities.

Average duration of appeals.

167. The average duration of appeals was 127 days as against 109 days in the previous year; the apparent retrogression being due to the hearing of a number of appeals pending since 1915 on account of the war.

High Court appeals.

168. It takes about three years for a first or second appeal to come up for hearing by a Division Bench of the High Court. This matter is engaging the serious attention of the Hon'ble Judges. It is true that the disposal of first appeals—by far the heaviest class of cases—kept pace with institution, but the number of first, second, and Letters Patent appeals pending is high, *viz.*, 2,192.

Accessibility of revenue records.

169. Generally good reports have been received in regard to the system by which special Kanungos prepare excerpts from the revenue records on the application of litigants and, in a few districts, on the application of other persons interested in titles in land.

23.—Registration.

General business.

170. The noticeable feature of the triennial report is the increase of 5 per cent. in number and 34 per cent. in the value of compulsory registrations of immovable property as compared with the figures of the previous three years. Instruments of sale show an increase of 18 per cent. in number and as much as 84 per cent. in value. The steady even advance in their numbers year by year was disturbed in 1919 by a sudden leap from 30,000 to 40,000. On the other hand, mortgages compulsorily registered, show a decrease of 2 per cent. in number though their value increased by 6 per cent.

The increase in the number of compulsory registrations is largely accounted for by the great supply of available capital built up by the agricultural and trading classes out of war profits and high prices. The growth of capital was not accompanied by a commensurate expansion of commercial and industrial activity, with the result that the purchase of land attracted attention as the easiest field for investment. The value of both agricultural and town lands appreciated enormously, and the latter, as an object of speculation, often changed hands four or five times in the course of the year. The growing tendencies on the part of the wealthier trading classes to flock into towns for business purposes and of the well-to-do urban classes to build residential houses on the outskirts of towns assist the incremental process, which is further influenced by frequent sales of plots in the suburbs required to meet the extension of industrial enterprise.

The number of optional registrations has been steadily dwindling, owing partly to persistent rise in the value of land and partly to the stronger public confidence in revenue mutation proceedings.

The Punjab Alienation of Land Act.

171. The general familiarity with the provisions of the Punjab Alienation of Land Act is testified to by the paucity of cases in which registration was refused on account of contraventions of the Act. Only eight cases came to light in which illegal deeds had been actually registered, and only one case of mortgage disguised as lease was detected.

Income and Expenditure.

172. The income of the Department in 1919 was Rs. 5·23 lakhs and its expenditure Rs. 1·72 lakhs. The total income in the triennium exceeded that of the preceding triennium by Rs. 1·88 lakhs or 17 per cent. Under registration fees, which are the principal item of income, there was an increase of 17 per cent. owing to an advance in the volume of business and the value of the property affected.

The total expenditure of the triennium amounts to Rs. 4·58 lakhs, or nearly 8 per cent. more in the preceding three years.

Establishment.

173. The work of Sub-Registrars is generally satisfactory, and early in the year the pay and prospects of the registration clerks were con-

siderably improved. It is unfortunate that the number of inspections of Sub-Registrars' offices by Registrars is, doubtless, under the pressure of other duties, decreasing year by year.

23-A—Legal affairs of Government in the year 1919.

174. General. The number of references for opinion disposed by the Legal Remembrancer was 918 as compared with 956 in 1918 and 955 in 1917.

175. Original suits. The Secretary of State was plaintiff in 13 original suits during the year. Of these 4 were decided in favour of, and 3 against, Government; whilst 6 remained pending at the close of the year. Of the 7 cases decided, 1 was for declaration of rights in land, 1 under section 21-A of the Punjab Land Alienation Act, 1 for ejectment from land, and 4 for recovery of money. The total amount involved was Rs. 74,842.

The Secretary of State was defendant in 67 original actions, including land acquisition references. Of the 12 land acquisition cases, 4 were decided and 8 remained pending. The Collector's award was upheld in all of them. Of the other 55 civil suits, 30 were decided in favour of, and 7 against, Government; 2 were compromised and 2 withdrawn; while 14 remained pending at the close of the year.

The total amount involved was on account of—

		Rs.
(a) Land Acquisition references	...	2,64,765
(b) Other cases ...	...	91,927
TOTAL	...	3,56,692

In class (b) above the total amount claimed in decided cases was Rs. 53,399, out of which only the sum of Rs. 4,212 (including costs) was decreed against Government; whilst Rs. 1,661 was awarded to Government on account of costs in cases in which the plaintiffs were unsuccessful.

Appeals.

176. The Secretary of State was appellant in 8 and respondent in 21 appeals. Of these 11 were decided in favour of, and 9 against, Government, the rest were pending at the close of the year.

Criminal Courts.

177. Government Law officers appeared in two original criminal trials in the High Court. Of these one was decided in favour of, and one against, Government. Of 840 criminal appeals in the High Court, 693 were decided in favour of, and 147 against, the Crown.

The Crown was also successful in 172 out of 235 applications for revision, 63 being decided against it. There were 14 miscellaneous cases : 8 were decided in favour of, and 6 against, Government.

24.—District and Local Boards.

General.

178. The event of outstanding importance during the year under report has been the re-constitution of all the district boards in the province and the institution of new electoral rules. In accordance with these rules a general election under the new constitution was due in February 1920 in all districts in which the elective system is in force; but, unfortunately, owing to delays, some elections had to be postponed to the following year.

Other events of importance are the creation of the Sheikhupura District Board in the new district (which was constituted in November 1919) ; the introduction of the elective element in the District Board of Lyallpur and the abolition of local boards in the Kangra District.

Elections.

179. The total number of elective vacancies open for competition during the year was 467; and although it is not possible to give accurate figures of the contests which were actually held, nor of the percentage of voters throughout the Province who went to the poll, it appears that the proportion (which was about 1 in 5) differed widely from that in previous years. The results do not at present indicate a greatly increased interest in local self-government or in the elective system ; but this interest should be stimulated by action which it is proposed to take towards the further reduction of the official element on the boards, the appointment of non-official chairmen and the grant to district boards of wider powers of

taxation. In the districts in which the elective system is not yet in force the nominations are now made with a view to representation of specific areas.

180. The members are reported to have evinced increasing interest in the deliberation of the boards; but an almost universal complaint is still made of their reluctance to undertake executive duties and of the breakdown of all attempts to entrust them with such. Amritsar is an exception in this respect and the Beas Agricultural Farm has been put under the management of one member with good promise of success.

Working of the District Boards.

181. The continued rise in prices of material and labour, the increasing demand for education and communications, and the necessity of raising the salaries of district board employees have added largely to the expenses of district boards, most of which, as reported last year, show anxiety for their future position in view of the inelasticity of their revenues. All boards have evidently been concerned to devise new means of adding to their income. The local rate has been raised to its maximum limit in Karnal, and a status tax has been sanctioned in Amritsar, Dera Ghazi Khan and Muzaffargarh; other districts are contemplating the imposition of this tax or a similar tax on professions. A general difficulty in the matter of finance is the continued opposition by members of boards to any increase in direct taxation, the invariable resource in case of lack of funds being an appeal to Government for a grant.

Finance.

Government has now delegated to all district boards the power to fix the proportion which the local rate shall bear to the annual value of land, but as the maximum rate has already been imposed by all, except three boards, this authorisation will not add appreciably to their resources.

182. The gross income of district boards, which showed an increase of Rs. 11½ lakhs during the previous year, rose by another 12¾ lakhs in the year under report, amounting to Rs. 107·69 lakhs or double the gross income of the year 1911-12. The local rate accounted for two lakhs of this increase, Rohtak,

Income.

Gurgaon, Gujranwala and Sheikhupura each gaining about Rs. ½ lakh under this head, while Gujrat and Multan lost respectively about Rs. 27,000 and Rs. 30,000. Over a lakh represents the contribution to the new district of Sheikhupura from the balance of the Gujranwala and the other boards concerned: and most of the remainder is composed of Government grants under various heads.

Income under the head Medical totalled Rs. 1·80 lakhs, an increase of Rs. 45,000. Hospital receipts rose by Rs. 10,000 to Rs. 23,934, but of this figure no less than Rs. 22,415 represents the amount realised in the two districts of Ferozepore and Muzaffargarh. Government gave increased grants, amounting to Rs. 87,914 as against Rs. 33,494 in 1918-19. Contributions from other sources decreased by Rs. 10,000. Receipts under education increased by over Rs. 4½ lakhs, the bulk of this being Government grants (3¼ lakhs), though school fees accounted for another Rs. 60,000.

Several boards remitted the local rate in villages in which land revenue had been remitted by Government in recognition of war services.

Expenditure.

183. The total expenditure of district boards was 98·46 lakhs, an increase of 17 lakhs over 1918-19.

Charges under medical were Rs. 10·21 lakhs, exceeding those of the previous year by more than 1½ lakhs; the greater part of this increase was on account of the opening of the new dispensaries. Despite the absence of any widespread and virulent epidemic in the course of the year the vigorous preventive measures undertaken by most boards resulted in there being a slight increase over last year's figures under the sub-head "Plague charges." The demand for new dispensaries varies in different districts, but the rural population are certainly beginning to set more value upon them. Much, however, depends on the popularity of the Sub-Assistant Surgeon in charge. The system of taking fees from the well-to-do is nearly everywhere reported as unpopular, both among the public and the Sub-Assistant Surgeons themselves, and it has been suggested that money could more easily be raised by periodically asking for public subscriptions to particular

dispensaries. The whole question has been recently under the consideration of Government.

Expenditure under the head "Education" increased by Rs. ½ lakhs to Rs 35·30 lakhs and under Civil Works by a similar amount. Under "Scientific and other Minor Departments" nearly Rs. ½ lakh more was spent on bulls and stallions and Rs. 20,000 on cattle fairs. The total expenditure under this head rose to Rs. 6·40 lakhs as against Rs. 5 lakhs in the previous year.

The increased demand for education is naturally reflected in the greatly increased expenditure under this head. In most cases, in fact, expenditure on education exceeded what the boards could afford. The five years' programme has been adopted by most boards and carried out with varying degrees of thoroughness. The general apathy in regard to female education is unchanged. Industrial schools are reported to be working well. It has been impossible so far to replace the school burnt at Gujranwala in the riots of April 1919.

Miscellaneous.

184. More boards are devoting attention to the opening of demonstration farms, but no farm has yet established itself as a profitable concern, and, until such is the case, the purpose of these farms is not likely to be effectively fulfilled.

The number of bulls supplied to district boards by the Government Cattle Farm at Hissar rose by 11 to 197. Interest in cattle-breeding as represented by a demand for breed bulls is curiously local. In the majority of districts the attitude of the zamindars is one of complete apathy, and they refuse to keep the bulls unless handsomely compensated; in other districts there is a keen demand and zamindars are willing to pay one-quarter to one-half the cost of the animals.

Attention to sheep-breeding, which was formerly confined to the Mianwali District (where it is still maintained), has been extended to Shahpur, in which district 22 cross-bred rams have been purchased and more are wanted, and to the submontane tracts of Ambala, where the district board assisted private owners in the purchase of 17 Merino rams.

A successful experiment in sericulture in Shahpur has roused much interest in the neighbourhood.

Arboriculture.

185. The total receipts on account of sale of trees were Rs. 3·65 lakhs or about Rs. 33,000 less than in the previous year, while the expenses under arboriculture charges have risen by Rs. 65,000 to Rs. 3·41 lakhs. The varying nature of soils and climate account for the widely differing results from local arboriculture throughout the province; but in several districts the figures show very large fluctuations from year to year which are a sure index of a defective system. Further, all boards do not realise the necessity of retaining an efficient whole-time staff to manage their arboricultural operations.

Sanitation.

186. Regulations have been framed by some boards on the subject of sanitation in villages, but they have been very sparsely enforced and for the most part remain a dead letter. Wider possibilities of improvement in the public health of rural areas are to be found in the appointment of District Health Officers, who will relieve Civil Surgeons of all public health duties. In January of the year under report Government decided to appoint District Health Officers in three selected districts, *viz.*, Jullundur and Rohtak, both advanced districts where the appointment would be likely to meet with public approval, and Gurgaon, a particularly unhealthy district, where the need for special attention to sanitation is marked. In these districts Government undertakes to pay for five years the cost of the District Health Officers' pay and establishment and the pay of the Sub-Assistant Surgeons required for new dispensaries. In any other district, if a District Health Officer be appointed, Government will pay his salary for five years. District Health Officers have now taken over their duties in Jullundur and Gurgaon of the three selected districts and in Kangra among other districts.

Benefactions.

187. Examples of public spirit combined with private munificence are to be found in the opening by Sardar Jogindar Singh of Aira of a dispensary at Iqbalnagar, in the Montgomery District, at a cost of Rs. 20,000 which he has handed over to the district board with the offer of an annual contribution of Rs. 360 for its upkeep; in the establishment by Rai Sahib Lala Banarsi Das of a college up to the F. A. standard at Ambala, and in a generous contribution to the Karnal District Board for the purpose of repairing the water-courses leading to the sacred tank at Kurukshetra; and, lastly, in the institution by Dr. Ghulam

Qadir Khan at his own cost of a well-equipped veterinary dispensary on approved lines at Qadirpur (in Montgomery).

25.—Municipal Administration.

General.

188. The number of municipalities remained at 101; that of notified areas increased to 105; three new areas being created, namely, Pindi Baha-ud-Din, Ambala Civil Station and Sheikhupura; while that of Dharmsala was amalgamated with the municipality.

Elections.

189. Thanesar was the only municipality in which the elective system was newly introduced. Here four out of six vacancies were contested, and 64 per cent. of voters went to the poll. Full municipal elections under the new rules were held at Rohtak, Sonepat, Palwal and Firozpur-Jhirka in the Ambala Division and at Montgomery in the Multan Division. There was no improvement in the conduct of the elections at Rohtak where the contests were keen, but marked by the usual corruption. One successful candidate was convicted of malpractices and forbidden to stand for any municipal election for the next ten years. In Montgomery four seats out of eight were contested, but there was no keenness. Ten seats fell vacant in the Hoshiarpur Municipality, and of these eight were contested with spirit. Much activity is reported in the preparation of the voters' lists in Rawalpindi, but bribery and corruption, unfortunately, prevailed on an extensive scale.

The disturbances of April 1919 prevented elections being held in Gujranwala, and the vacancies were temporarily filled by nomination. The elections will be held in due form in the present year.

Working of the Committees.

190. The general attitude of members in regard to their responsibilities shows, on the whole, an improvement, and there are few committees which are reported as conspicuously lacking in public spirit, or as swayed entirely by personal interest and party faction; but these latter considerations still have a preponderating influence in Rohtak, Nurmahal, Wazirabad, Sangla and Jhang. In most other committees there are distinct signs of an awakening sense of civic responsibility. Non-official presidents have been elected in place of officials in the Karnal, Hoshiarpur, Jullundur and Gurdaspur

municipalities and this policy of the withdrawal of official control has undoubtedly increased interest in municipal affairs and the desire among citizens generally to become members of committees. In the Ambala Division there are still few real workers, most being content to depend on official suggestion. One reason for this is that the complicated Account Code and departmental rules present serious obstacles to the poorly-educated majority of members. The Murree Committee has evinced a real sense of responsibility and an independent desire for improvement, and the smaller committee of Gojra is also held up as a model for its energy and public spirit.

Sub-Committees.

191. The manner in which municipal committees have carried out their statutory functions is generally reported to be satisfactory. The work of sub-committees shows in many cases a marked improvement, the Finance and Education sub-committees in Lahore and the Finance, Works and Health sub-committees in Amritsar being conspicuous in this respect. There is a tendency, however, on the part of some sub-committees, notably in Dera Ghazi Khan, to delegate their functions unduly to individual members. Thanesar and Shahabad committees appear to have little control over their executive and clerical establishment,—a fact which is partly attributed to the employment of honorary secretaries : nor does Jhelum appear to have made any improvement in this respect.

Social problems.

192. Many committees are making conscientious efforts to deal with overcrowding. Lahore has taken steps to acquire land and house property in five localities with a view to relieve congestion, and the Rohtak Committee have also proposed to acquire a plot of land with the same object. Similar measures are being taken by Ambala, Jagadhri, Sadhaura, Gurgaon and Shahpur. Lahore and Amritsar both submitted schemes for Improvement Trusts, which have been held over pending consideration by Government of the need of legislation.

Miscellaneous.

193. Medical relief is in most places severely limited by lack of funds, but a remarkable increase in attention to medical institutions is reported from Jhang, where expenditure on this object has risen from Rs. 15,000 to 1½ lakhs. Among the innovations is the appointment of a Lady Assistant Surgeon. The infant mortality in Rawalpindi during the year was no less than 284 per

thousand, and in Lahore also was about 230,—figures that tell their own tale of the conditions in which children and mothers are compelled to live and the crying need for greater medical attention. Education has received a full share of attention, particularly in Lahore and Multan. The latter committee has arranged to introduce free Primary education in schools maintained by itself, and has also been the first municipality in the Province to obtain Government sanction to a complete scheme of compulsory education.

194. A number of municipalities in the Province are taking steps to carry out comprehensive schemes of drainage and water-supply, most of which have been long held up under conditions produced by the war. The question of applying the provisions of the Adulteration of Food Act has also been raised by several committees.

The disturbances of April 1919, and the enforcement of Martial Law in the following months, naturally threw out of gear the municipal machinery in the towns most affected, Lahore, Amritsar, and Gujranwala. Amritsar, as mentioned above, suffered the loss of its Municipal office and records.

195. Fires caused some destruction, notably in Sialkot, where the Deputy Commissioner's English office was destroyed in November 1919, and in Rawalpindi, where no loss than five fires occurred, one of which resulted in damage to the extent of about Rs. 60,000, while another caused the loss of two lives. There was a somewhat severe outbreak of plague at Multan, which spread to Muzaffargarh, but prompt measures were taken and relief works were carried out by both the municipal committee and the local Sewa Samiti.

Cheap shops.

196. In consequence of the hardships caused to the poorer classes by the high prices of cloth, fuel, and other necessaries, several committees opened and managed shops for the retail sale of standard cloth, firewood and salt, Multan spending nearly Rs. 15,000 on these objects and Rawalpindi some Rs. 25,000.

Taxation.

197. The year may be said to have been remarkable for the movement in favour of the establishment of terminal taxation in place of octroi. The total receipts from taxation during the

year amounted to Rs. 59·18 lakhs, but a complete comparison cannot be made with last year's figures owing to the destruction of the Amritsar municipal records for that period. Excluding Amritsar, the figures are Rs. 52·80 lakhs, as against Rs. 49·11 lakhs. The incidence per head of population rose from Rs. 3-5-6 to Rs. 3-10-3; octroi receipts amounted to Rs. 53·14 lakhs, an increase of Rs. 10·16 lakhs; while realisations from terminal tax totalled just under half a lakh, which is less than a moiety of last year's income. The marked increase in octroi receipts is everywhere attributed to the continued rise in prices of commodities on which an *ad valorem* duty is charged, but good harvests are also advanced as a reason in some areas. The decrease of Rs. 15,443 and Rs. 7,267 which is shown in receipts from terminal tax in Fazilka and Muktsar is apparent only, being due to collections made by and in the hands of the Railway not being credited to municipal funds before the close of the year. Terminal tax in Gujranwala also yielded much less than was anticipated.

26.—Military (Indian Defence Force).

General.

198. The (one) mounted and three Infantry units of the Indian Defence Force in the Province were the 5th Punjab Light Horse and the 4th Simla Rifles; the 3rd Punjab Rifles; and the 1/24th North-Western Railway Battalion.

5th Punjab Light Horse.

199. The strength of the Light Horse on the 1st April 1920 was 196, exclusive of 140, who had been granted commissions in the Indian Army Reserve of Officers. The Lahore troop of the Corps was mobilised for service during the disturbances of April 1919.

4th Simla Rifles.

200. The 4th Simla Rifles mustered 444 strong, exclusive of 211, who proceeded on service during the war. The present strength of the Battalion, under the new Auxiliary Force Act of 1920, shows a marked decrease, possibly due in part to the introduction of the six-years scheme (since reduced to four years).

3rd Punjab Rifles.

201. The strength of the 3rd Punjab Rifles at the close of the year was 41 Officers and 863 other ranks, the increase of 58 in other ranks being due to the return from active service of members and to transfers from other units.

In the April disturbances the detachments at Lahore, Amritsar and Murree were mobilised for actual military service from the beginning of April to the beginning of July 1919, and, in addition to assisting the regular garrison, were employed in holding certain strategical positions for the protection of Civil Lines. The Lahore Detachment was also called upon to furnish trained personnel for the armoured train of two officers and 18 other ranks as 12-pounder gunners and two officers and 20 other ranks as machine-gunners.

It is reported that from this Corps during the war 135 officers were provided for the Indian Army Reserve of Officers and 358 other ranks to His Majesty's Forces, of whom 17 officers and men died on service and 9 were wounded. In all 15 officers and men gained distinctions; and 17 officers and men were mentioned in despatches.

1-24th North-Western Railway Battalion and Indian Section of the Indian Defence Force.

202. There is no report on the Railway Battalion or on the Indian Section of the Indian Defence Force.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Agriculture.—(1) Report on the Operations of the Department of Agriculture, Punjab, for the year ending 30th June 1920.

(2) Annual Report of the Punjab Veterinray College, Civil Veterinary Department, Punjab, and Government Cattle Farm, Hissar, for the year 1919-20.

(3) Report on the Land Revenue Administration of the Punjab for the Agricultural year ending 30th September 1919.

(4) Report on the working of Co-operative Societyties for the year ending 31st July 1920.

Fisheries.—Report on the Department of Fisheries, Punjab, for the year ending 31st May 1920.

Weather and Crops.—(1) Report on the Weather of the Punjab for the year 19 9-20.

(2) Punjab Season and Crops Report for 1919-20.

Horticulture.—Report on the Lawrence Gardens, Lahore, for the year 1919-20.

Forests.—(1) Progress Report on Forest Administration in the Punjab for 1919-20.

(2) Progress Report on Arboriculture in the Punjab for the triennial period 1914-15 to 1916-17.

(3) Report on the Administration and Accounts of the District Boards in the Punjab for the year 1919-20.

(4) Land Revenue Report, as above.

Manufactures.—Report on the working of the Factories Act in the Punjab during the year 1919.

Trade.—(1) Report on the Internal Trade of the Punjab by rail and river for the year 1919-20.

(2) Report on the External Land Trade of the Punjab for the year 1919-20.

(3) Report on the Joint Stock Companies in the Punjab for the year 1919-20.

Public Works.—Administration Report of the Public Works Department, Punjab, Buildings and Roads Branch, for the year 1919-20.

Irrigation.—(1) Administration Report of the Public Works Department, Punjab, Irrigation Branch, for the year 1919-20.

(2) Land Revenue Report, as above.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Agriculture.—Statistical Abstracts for British India, Volume I, Commercial Statistics.

Forests.—Statistical Abstracts for British India, Volume II, Financial Statistics.

Crops.—(1) Agricultural Statistics of India, Volume I, Tables II and III.

(2) Estimate of Area and Yield of certain principal crops in India.

(3) Prices and Wages in India.

(4) Variations in Indian Price Levels.

Mines and Quarries.—(1) Statistical Abstracts for British India, Volume I, Commercial Statistics.

(2) Records of the Geological Survey of India, Volume XLVII, Part 3.

(3) Report of the Chief Inspector of Mines in India.

Manufactures—Statistical Abstracts for British India, Volume I, Commercial Statistics.

Trade.—(1) Inland Trade (Rail and River-borne) of India.

(2) Statistical Abstracts for British India, Volume I, Commercial Statistics.

Railways.—Administration Report on Railways in India for the year 1919-20.

Irrigation.—Statistical Abstracts for British India, Volume I, Commercial Statistics.

27.—Agriculture.

SCIENTIFIC.

General.

203. Twelve new posts have been added to the cadre of Agricultural Assistants, which now stands at 69. The cadre of *mukaddams* has been provincialised.

The Lyallpur College.

204. The results of the College for the last seven years show a welcome increase in the number of agriculturists (in contrast to non-agriculturists) passed out. Sanction has been given to the construction of a new hostel to accommodate initially 136 and eventually 200 students.

The College has been affiliated to the Punjab University, and a Degree of B. Sc. in Agriculture is now awarded to students who successfully complete the four years' course at the College. Of the first batch of 20 students examined this year by the Punjab University, 17 were declared successful, three being placed in the First Division. The vernacular class at Lyallpur admitted 16 students; the rural economy class consisted of 18. The Teachers' Class passed out 20 teachers, who will teach Agriculture in selected Middle Schools.

The annual value of the internal scholarships awarded at the College has been raised to Rs. 6,000.

The Agricultural Adviser to the Government of India has allotted a sum, bringing in an annual interest of Rs. 70 for the award of Southern Memorial prizes. A proposal for the award of a Research Scholarship of £250 for the study of Agriculture abroad is under the consideration of the Government of India. This year's Research scholarship, tenable for two years in India, has been awarded for the study of "Rice and its Cultivation."

Private analyses for which fees are charged can now be obtained at the College.

Experiment and Research.

205. Another series of milling and baking tests of wheat were made by Mr. Milne at the Shahdara Flour Mills. The experience at the Shahdara Mills in 1919 and at the Delhi Mills in 1918 shows that it is impossible to expect mill managers to free their machinery sufficiently for an accurate quantitative test to be carried out. It appears that a Midget mill is required for tests on the Lyallpur Farm itself. The results of these and previous tests by Mr. Milne himself and by Mr. Humphries in England all show that 8-B is one of the best wheats in milling and baking qualities. Its value as a yielder has yet to be tested; 8-A, an-

other of Mr. Milne's varieties, though it has a yield on an average not less than that of Punjab 11, the standard Punjab wheat, is rather lower down in the milling and baking tests.

The Agricultural Chemist continued work on a theory of soil moisture and soil colloids, osmotic pressure in soils, nitrogen fixation, green manuring, sullage and *bara* reclamation experiment. So far no economic results have been obtained regarding *bara* reclamation, and it would be premature to expect them. The arrival of the second set of Fowler steam tackle will allow of more rapid progress in deep machine-ploughing.

Date suckers have been imported from Basra.

Sericulture.

206. Of the silk-worm seed received in good time, 100 ounces were distributed in February 1920. The results have been very encouraging. As compared with last year the yield of dry cocoons per ounce increased from an average of 3 seers to over 11 seers, and the price per maund from about Rs. 195 to Rs. 227. The number of men who took up rearing increased from 206 to 301. These results are, to no small extent, due to the appointment of a whole-time Entomologist, who has done much to rescue the silk-worm industry from the severe set-back caused by last year's failure. The Salvation Army imported no seed in the year under report, and has apparently ceased to take any active interest in the spread of sericulture. The Simla Silk School is defunct.

Entomology.

207. American cotton 4-F proved slightly more susceptible to bollworm than *desi* cotton. In the examinations made Americans had suffered more than *desis* in 14 cases, while *desis* suffered more in 9 cases ; in one instance the incidence was equal. Work is being done on life histories of the parasites of mango hopper and weevils.

Agricultural Engineering.

208. The number of wells bored during the year has increased from 349 to 360 and the percentage of success from 77·6 to 84·3. Five tube well installations are in progress, but completion is being delayed for want of pumps from England.

The Agricultural Engineer is engaged on designs for (1) a power-boring machine to suit Punjab soils ; (2) a *bhusa*-making plant, and (3) a bullock cart.

Experimental Farms.

209. Experiments continue to be carried out at Lyallpur, Gurdaspur, Sargodha and Hansi Farms. Full details can be seen in the Annual Experimental Record issued as Part II of the Annual Report.

DISTRICT WORK.

Implements.

210. In spite of the great increase in the prices of imported implements the number sold during the year has risen from 396 to 432. The increase in the sale of implements manufactured by the Department was more significant, the figures being—

1918-19	...	...	778
1919-20	...	...	2,380

There will certainly be a further increase, and it is time for private enterprise to attempt to meet the demand.

Progress of 4-F American cotton.

211. This cotton continued to be much in favour with zamindars in the canal colonies, and the area sown now reaches a figure of nearly half a million acres. Unfortunately the 1919 crop was much below standard in the Lower Chenab and Jhelum Colonies owing to the failure of the September rains. In the preceding months vegetative growth had been good, but formation of bolls had been delayed by rain. When this did take place suddenly and generally, it entailed a great strain on the plant which only a very good supply of water would have enabled it to meet. The result was that bolls opened badly and the lint was poor. However, the premium commanded by 4-F has been so great that zamindars are not deterred from sowing it in spite of small set-backs.

Cotton auctions.

212. Fourteen auctions were held through the Agricultural Department at which 53,512 maunds of cotton were sold, the prices varying from Rs. 18-9-0 to Rs. 23-1-0 a maund. The failure of American cotton on a large area is responsible for the decrease in the amount sold this year as compared with that sold in 1918-19.

Wheat.

213. No auctions were held by the Co-operative Department. Sowings of Punjab-11 for the last three years are :—

1917-18.	1918-19.	1919-20.
196,500 acres.	302,500 acres.	377,500 acres.

Six hundred and seventy-five acres under 8-A and 70 acres under Pusa-12 are reported to have been sown in the Lower and Upper Jhelum Canals in addition. Pusa-12 has become very popular in the Hill States, largely through the efforts of Mr. Peake of Solon.

Seed Depôts.

214. The Seed Depôt accounts show a profit of about a lakh of rupees. The allotment from wheat profits or the purchase of pure seed of cotton and wheat during 1919-20 was Rs. 5 lakhs.

Demonstration work.

215. Possession of land for demonstration farms was taken at Ludhiana and at Amritsar. A course for soldiers at Jullundur Cantonment has been started at the Jullundur Demonstration Farm, and on the suggestion of the Director of Public Instruction a course for school boys is being drawn up, the practical teaching of which will be given on the demonstration farms.

MISCELLANEOUS.

Agricultural Associations.

216. An Agricultural Association has been formed at Rohtak. There are now eleven Agricultural Associations in the Province which do much propaganda work.

Provincial Board of Agriculture.

217. In pursuance of a resolution passed at the last meeting of the Pusa Board of Agriculture a Provincial Board of Agriculture has been formed for the Punjab under the presidency of the Financial Commissioners. Its first meeting was held at Lyallpur in January 1920.

Extensions.

218. The Research work of the Department, which is its main justification for existence, has suffered very much throughout the year from financial stringency. In particular the contemplated extension of the chemical block has been long delayed, and even if the second Agricultural Chemist, Physicist, and Bacteriologist be recruited shortly there will be no adequate laboratory accommodation for them.

Co-operative Societies.

General.

219. The Co-operative movement made marked progress during the year both in the number and quality of the societies. To meet the growing volume of work the staff was increased by two Assistant Registrars and ten Inspectors; while the prospects of these officials were improved by the decision to include Assistant Registrars in the cadre of the Provincial Civil Service and to continue to recruit them chiefly by selection from Inspectors.

The number of Societies increased by 1,709 and of members by 37,099. Working capital was Rs. 44 lakhs more than last year. A Co-operative Information Bureau was started at Amritsar and proved of considerable use to supply societies. District conferences were held in practically every district, which were well attended and proved successful in stimulating communal feeling.

Secondary Institutions.

220. Two new Central Banks, 20 Credit Unions, and 43 Supply Unions were registered. Unions of Weavers' Societies are also being tried. The central financing institutions are steadily increasing their share capital and reserve, these together representing 22 per cent. of the real working capital and thus providing ample cover. Transactions between the primary societies and other financing agencies are growing apace as is shown by the following figures :—

1916-17.	*1917-18.*	*1918-19.*	*1919-20.*
Rs.	Rs.	Rs.	Rs.
24·7 lakhs.	35·6 lakhs.	62 lakhs.	87 lakhs.

The financial stringency in June and July gave rise to some difficulty in obtaining funds for the large number of new societies, but the Jullundur District provided three lakhs in July, thus raising its total loans to other districts in the twelve months to nine lakhs. The control of the Central Banks is rapidly passing to the primary societies, whose representatives are taking an increasing part in the deliberations at general meetings.

Agricultural Societies.

221. The number of Agricultural Credit Societies increased from 5,087 to 6,614 during the year, and it is becoming clear that the highly-trained staff has acquired the confidence of

the people, who are now willing to organize themselves for definite economic ends. The number of members increased by over 30,000. Collections on account of principal and interest increased by Rs. 13·37 lakhs to Rs. 65·17 lakhs. The members now own Rs. 106 lakhs in shares, reserve and profits, and 11 lakhs in deposits. In three districts the capital owned exceeds the sum borrowed, so that financial independence is rapidly growing. Over 1,000 societies require no help from Central Banks, and in about 700 societies the members are reported to be entirely free from debts to money-lenders.

Over Rs. 67 lakhs were advanced in loans, of which the largest proportion was for purchase of cattle, thus emphasizing the great economic waste due to heavy cattle mortality. Over 15 lakhs were devoted to the re-payment of old debts; over 4 lakhs to the redemption of mortgages; and over $1\frac{1}{4}$ lakhs to the purchase of land. The committees are showing great improvement in the care with which they sanction loans and in the attention they pay to prompt recoveries. The standard of audit is being raised, and the accounts generally are much better kept than before.

New forms of Co-operation.

222. Rural supply is rapidly gaining in popularity. It is estimated that goods worth over Rs. 8 lakhs were supplied by Agricultural Societies. Special societies for the sale of cotton, wheat, etc., are being replaced by Co-operative commission shops.

Cattle insurance is making steady progress: during the year 14 new Societies were organized, bringing the total to 22. The number of cattle insured increased from 372 to 587. The committees are working well, but it is only natural that difficulty should be experienced in introducing such a novel feature into village life.

During the year an attempt was initiated to solve the problem of excessive fragmentation of holdings by starting special Co-operative Consolidation of Holdings Societies. Twenty were registered, and progress exceeded expectations. It is too early yet to offer any opinion as to whether such societies will prove popular over a wide area, but experience is being gathered that should prove of value in the effort to grapple with a serious cause of economic weakness.

Other novel features of the year have been societies to suppress unnecessary litigation by organizing a system of arbitration, societies to reclaim lands destroyed by hill torrents in Hoshiarpur, and night schools.

Co-operation and Agriculture.

223. The steady persistent efforts to stimulate amongst co-operators a more lively interest in the improvement of agriculture are beginning to bear fruit. Societies sold 1,073 Meston ploughshares, other improved implements, and several thousand maunds of seed. Seventy-seven demonstration plots have been arranged for, and two seed and demonstration farms organised. The demand for fruit trees largely exceeded the available supply.

Industrial Societies.

224. The number of Weavers' Societies increased from 38 to 49. Two Unions have been registered, and a third was formed. The Central Weavers' store had a turnover exceeding Rs. 6 lakhs. It has been transferred to Amritsar, so as to be nearer the market for yarn and cloth. Eight societies of dyers were registered during the year.

Urban Supply.

225. Urban Supply Societies, numbering 112, sold goods to the value of Rs. 5·42 lakhs to their 9,650 members. Difficulties connected with the railway militate against success, and it remains to be seen whether the Punjab townsman has the grit to persevere in face of obstacles.

General results.

226. Of Societies 53 per cent. inspected have been classified as good, as compared with 47·5 per cent. last year and 45·3 per cent. the year before. This steady improvement is largely due to a real increase in knowledge and understanding of co-operative principles and to the gradual awakening of the people to ideas of hope and progress. It is at last beginning to be realised that existing unsatisfactory conditions can be ameliorated through organised self-help.

Veterinary and Live-stock.

Cattle Mortality.

227. There was a comparatively high mortality from contagious disease amongst cattle, rinderpest alone accounting for 42,155 reported deaths or more than double the number of the previous year.

This phenomenon may, perhaps, be attributed to a low vitality consequent on shortage of fodder. Deaths from foot-and-mouth disease numbered 2,592 against 536 in the year 1918-19; and from hæmorrhagic septicæmia 6,319 against 5,349.

It is reported that vaccinations against hæmorrhagic septicæmia are increasing in popularity; inoculations against rinderpest had, however, to be restricted owing to the shortage of serum.

Veterinary College.

228. The staff of the College, which had been depleted during the war, was strengthened by the addition of two European Professors. Eighty-one new students were admitted to the College against 78 in the previous year. Altogether 217 students presented themselves in the various annual examinations with satisfactory results. The post-graduate class, which it was intended to re-open, could not be started owing to lack of candidates. The revised course of studies which has been approved by the Government of India demands better educational qualifications from the students since only those who have passed the Matriculation Examination or an equivalent standard will be admitted to the College and instruction will be imparted in English. The question of affiliation of the college to the Punjab University and constitution of a Veterinary faculty is under the consideration of Government. The attendance at the hospital clinic showed a slight decrease over last year owing partly to the increased expense involved in feeding and maintaining domestic animals in Lahore and partly to the increase in mechanical transport. There was, however, a large attendance at the dog hospital.

Veterinary Hospitals.

229. The number of veterinary hospitals in the Province increased by 2 and is now 131, in addition to 6 dispensaries. A sum of Rs. 48,000 has been allotted to District Boards for the construction of new, and improvement of existing, hospital buildings. The attendance of patients continues to expand, and there is scope for many more hospitals.

Cattle-breeding.

230. There are now 1,352 stud bulls, chiefly from the Government Cattle Farm, Hissar, as against only 637 six years ago. The severe

shortage of farm and dairy stock is indicated by the following figures :—

—	1914.	1920.	Decrease.
	Millions.	Millions.	Millions.
Bulls and bullocks	4·6	4·0	0·6
Cows	3·7	2·7	1·0
She-buffaloes	2·7	2·4	0·3
TOTAL ...	11·0	9·1	1·9

The scheme for subsidizing selected owners of Dhanni bulls has been put into operation, and the numbers of District Board and subsidized Dhanni bulls in the three districts of Attock, Jhelum, and Rawalpindi are respectively 12 and 21.

The Rawalpindi District Board started the scheme without any financial aid from Government, while the District Boards of Attock and Jhelum received Rs. 4,200 and 2,880, respectively, from Government wheat profits.

GOVERNMENT CATTLE FARM, HISSAR.

231. Despite a somewhat deficient rainfall the growth of grasses was on the whole up to average. In the absence of grazing from the 1st of April to August the stock was stall-fed generally with some loss of condition to the cows. Following the general rise in market prices of cattle the privileged price charged to District Boards in the Punjab for a bull was raised from Rs. 200 to Rs. 250, with effect from 1st April 1920.

The profit and loss account showed a loss of Rs. 29,766 against a profit of Rs. 11,534 in the previous year. This unfavourable result is ascribed to high prices of gram, increased expenditure on stall-feeding, the grant of various kinds of allowances to the employees, restricted sowings in 1918, and the resultant shrinkage of the oats crop.

Camel Specialist, &c.

232. The laboratory of this specialist was re-transferred from the Military Department to the Civil authorities on the 1st September 1919. Experiments as to the efficiency of tartar emetic in curing camel surra are being pursued and there are grounds for hoping for ultimate success.

The virulence of the surra trypanosome is proved by the experiments on ponies, dogs, sheep, rabbits, and guinea-pigs, all of which succumb to the disease on artificial inoculation. Buffaloes and goats are, however, found to be immune carriers. To determine the number of surra-infected camels belonging to private owners an examination of all privately-owned camels throughout the Punjab has been commenced. A fly survey was also started with the help of a Pusa expert.

Forest legislation, resulting in the closure of large areas of Rakhs to camel owners, and reclamation by the Canal Department of extensive tracts which were previously available for the breeding of camels, have caused a serious reduction in the number of camels bred.

Quinquennial cattle census.

233. The quinquennial cattle census was held in February 1920, and the following statement compares its results with those of the preceding census :—

Cattle.	Actual Increase or Decrease in thousands.	Increase or Decrease per cent., + or −.
1. Bulls and bullocks ..	− 630	−14
2. Cows	− 928	−25
3. Male buffaloes	− 132	−24
4. Cow "	− 195	− 7
5. Young stock	+ 805	+20
6. Sheep	− 646	−14
7. Goats	− 1,376	−31
8. Horses and ponies	− 31	− 7
9. Mules	− 4	−12
10. Donkeys	− 96	−14
11. Camels	− 76	−25
12. Ploughs	− 69	− 3
13. Carts	+ 7	+ 2

Causes of decline in stock.

234. These figures show a very serious general decline in the numbers of stock. Apart from the diminution caused by slaughter for the greatly-increased consumption of meat, to two main causes is ascribed this noticeable falling off; *viz.*:—(1) great mortality among sheep owing to diseases and (2) decrease in the numbers of nomadic shepherds, by reason of the shrinkage of grazing areas in the Province.

27-A.—Fisheries.

Progress.

235. The main problems that confront the Warden may be summarized as the conservation of fish in the rivers, streams and canals which involves various licensing schemes for districts: fish breeding in, and protection of natural spawning grounds, and fish breeding in artificial farms. With the staff at his disposal the Warden was unable to devote the requisite attention to all these questions and he decided to follow up closely the subject of the licensing regulations. It was found that the promulgation of rules in certain selected districts without an accompanying explanation of their objects and adequate propaganda produced the very result it was sought to avoid, *viz.*, the hostility of local fishermen. This undesirable effect has been satisfactorily removed by a system of lectures and propaganda among the classes most interested: but it is evident that great caution must be exercised in the extension of licensing rules to new districts until a suitable staff is available to make known the beneficent objects of the regulations and dissipate misunderstanding. The changes effected by the system of licensing involves certain benefits to fishermen, notably the removal of the contractor monopolist, and if they understand what is being done there are good prospects of securing their co-operation.

Culture.

236. The fish sanctuaries, particularly those at the Dehr and Garli Khuds, have continued to thrive. The experiment of stocking the Nammal Dam in the Salt Range has been abandoned owing to the liability of the dam to complete emptying for irrigation purposes. Trout culture in Kulu continues to be satisfactory and anglers report that the fish are beginning to take fly.

Staff.

237. Expansion of the Fisheries staff is gradually taking place according to requirements.

28.—Weather and Crops.

Period.

238. This section deals with the autumn harvest of 1919 and the spring harvest of 1920, a period extending from January 1919 (the earliest month the rainfall of which could affect the autumn harvest) up to the end of May 1920 (the latest month in which the spring harvest could be influenced).

Character of the season.

239. In January 1919 the rainfall was everywhere considerably in excess of normal. February and March were drier than usual; and except in the montane and submontane tracts the same was the case with April. The deficiency of spring rainfall did not, however, seriously affect the sowings of cotton and cane, nearly 80 per cent. of which crops are under irrigation. Moreover, cotton can be sown in some parts of the Province up to the middle of July. The monsoon appeared in the north and east about the middle of July, and penetrated the rest of the Province a week later. It gave heavy and general rain, but ceased (earlier than usual) about the middle of September. October was dry almost everywhere; and, except for light showers in parts of the Province, so was November. The result was that standing unirrigated autumn crops were considerably damaged, and the sowings of spring crops restricted. Rain which fell in December greatly benefited sugarcane and the early-sown spring crops, and led to further sowings. More beneficial rain fell in January 1920 and the first week of February, but the rest of that month and the first week of March were dry. Light to moderate rain was received in the second and third weeks of March, much improving the prospects of the spring harvest. Frost and hail-storms in February and March, however, caused damage. A generally dry April was suitable for the ripening of the crops. In brief, climatic conditions were favourable except for the maturing of the autumn and the sowings of the spring crops, although the latter, where sown late, failed in many districts.

Owing to the abundance of snow and the heavy monsoon rains river and canal supplies were plentiful.

Sown and matured areas of the year.

240. The sown and matured areas increased by 33 and 48 per cent., respectively, as compared with the preceding year, and by 1 and 5 per cent. as compared with the

normal. The percentages of the area sown on the normal area were remarkably low only in Rawalpindi and Dera Ghazi Khan, being 86 and 78, respectively.

Irrigated area of the year.

241. As might have been anticipated in the circumstances the area irrigated from wells considerably decreased; that irrigated from Government and private canals, tanks, and other sources increased.

Owing to a large expansion in unirrigated sowings the percentage of irrigated sowings on the total decreased from 56 to 45. Sixty-six per cent. of the total irrigated area was irrigated from Government canals, and the remainder from private canals and other sources.

Outturn of chief crops.

242. *Wheat.*—The area under wheat advanced by 15 per cent. from 7,684,420 to 8,812,803 acres. It was still, however, 4 per cent. below the normal. In parts of the south-east and west the winter rains were insufficient for the maturing of the crop. In other districts it was damaged by cold and hail-storms. The percentages of the actual yield per acre on the normal vary from 85 to 135 on irrigated and from 50 to 150 on unirrigated areas. According to the estimate given in the final forecast (revised in cases where amended figures of areas have been reported) the total outturn was 3,383,459 tons or 21 per cent. above normal. The percentage outturn of the other principal crops, as compared with the estimated normal outturn, is given below :—

Name of Crop.		Outturn in percentage on Estimated Normal.
Rice	...	120
Barley	...	115
Jowar	...	209
Bajra	...	152
Maize	...	129
Gram	...	110
Rabi oil-seeds	...	110
Sugarcane	...	131
Cotton	...	195

Prices, Trade and Food stocks.

243. Generally good harvests and restricted exports in 1919-20 depressed prices. The average price of jowar fell from Rs. 7-4-0 to Rs. 5, of bajra from Rs. 6-14-0 to Rs. 5-6-0, of cotton from Rs. 14-12-0 to Rs. 13-5-0, of wheat from Rs. 5-9-0 to Rs. 4-15-0, and of gram from Rs. 5-9-0 to Rs. 4-13-0 per maund. The prices of other crops fell from Re. 1 to Re. 0-10-0 per maund. Exports of wheat and gram were smaller ; and of jowar, bajra, and cotton larger than in the preceding year. Imports of sugar and rice (which are imported on the balance) declined. Stocks of food-grains are generally sufficient.

29.—Horticulture.

Lawrence Gardens, Lahore.

244. Last year's anticipation that there would be a substantial increase in receipts this year was borne out by the results, garden sales having risen by Rs. 2,592, which may be taken as a fair indication of the return to normal conditions. Large quantities of cut chrysanthemum were supplied during the winter to Calcutta florists and the Bikaner State. The annual chrysanthemum and spring flower shows were revived after a lapse of four years. Further improvements have been effected in the gardens, and the expenditure incurred on ornamentation and additional road-metalling has been justified by the results attained.

The number of students attending the arboriculture classes rose to 34.

30.—Forests.

Alteration in area.

245. The area controlled by the Forest Department was reduced by 301 square miles to 6,744 square miles. Ninety-nine square miles of irrigated land were disforested for colonization ; while, as a result of completion of the Forest settlement in Kangra, 270 square miles were brought under the control of the Forest Department and 466 square miles transferred to the control of the Civil Department. The classification of the

forests is now as follows :—

	Square miles.
Reserved	1,742
Protected	4,035
Unclassed	607
Leased	360
TOTAL ...	6,744

Forest Settlement.

246. The settlement of no new areas was taken in hand during the year. Out of a total area of 13·09 square miles undergoing settlement at the beginning of the year half a square mile was finally settled, leaving a balance of 12·59 square miles (Daphar and Tera plantations) to be dealt with. No progress could be made with the demarcation of the high-lying pine and fir forests in connection with the settlement of the Sutlej Valley forests in Bashahr.

Working Plans.

247. Some defects in the Kangra revised plan, which was finished last year, have still to be remedied.

The Shahdara revised working plan and the felling schemes for the Bhajji and Tharoch State forests were approved ; the browsing scheme for the 53rd Silladar Camel Corps was sanctioned, while that for the 54th Silladar Camel Corps is still under consideration.

Protection.

248. The total number of offences reported was less than last year and the average of the preceding years by 407 and 613, respectively. The total area of forest burnt was only 8,933 acres. The Divisions which suffered most were Kulu, Kangra, and Multan. In the two last-named most of the area was burnt through intentional firing. In the two Rawalpindi Divisions only 282 acres were burnt in 27 fires.

The area open to all grazing decreased from 5,777 to 5,432 square miles owing to disforestation for colonization and transfer of large areas in Kangra to the Civil Department. Damage was done by late frosts in the irrigated plantations, and by late snow in the hill forests.

Natural and artificial reproduction.

249. Exceptionally little seed was produced by most of the important species of trees. The state of existing reproduction was, on the whole, satisfactory, more especially in Kulu and Kangra; but owing to a succession of poor seed years reproduction of *chir* pine in both Rawalpindi Divisions is still disappointing. In the higher lying forests of the Rawalpindi West Division, where the broad-leaved trees are being exterminated by lopping, blue pine is rapidly establishing itself. The production of shoots was good in the Kangra bamboo forests. In the Jhelum Division the poor results of coppice fellings and want of seedling reproduction give cause for anxiety in the acacia and olive forests. The total area sown up to the end of the year in the five irrigated plantations was 7,094 acres as compared with 6,123 acres at its commencement. The supply of water in nearly all the irrigated plantations is inadequate, and many distributaries need remodelling to ensure the minimum irrigation necessary. The total expenditure incurred on, and revenue derived from, all these new plantations up to the end of the year have been Rs. 2·80 lakhs and Rs. 7·25 lakhs, respectively.

Exploitation.

250. The outturn of all classes of produce compares as follows with the average of the three preceding years:—

	Timber. Thousands of c. ft.	*Firewood.* Thousands of c. ft. stacked.	*Minor Produce.* Value in lakhs. Rs.
1919-20 ...	7,718	27,522	26·41
Average, 1916-17 to 1918-19. ...	8,119	27,072	24·27

Owing to the introduction of departmental exploitation comparison of the timber outturn with that of recent years is misleading. But taking last year only for comparison departmental exploitation which was re-introduced in Kulu during the year indicates some progress. Distribution of timber to right-holders throughout the Kulu Division accounts for a considerable increase in the removals by this class. There was keen demand for firewood in the plains divisions. The increase in minor produce is due to more extensive resin-tapping in Kangra and the two Rawalpindi Divisions, 38,427 maunds of crude resin in all being collected. In addition to this 2,825 maunds

of resin were purchased from Kashmir, Patiala and the North-West Frontier Province, and 106 maunds of resin were sent by the Government of Burma to Jallo for experimental distillation. Altogether 35,656 maunds of resin were distilled, a satisfactory increase of 24 per cent. on last year's working. The outturn of resin was 25,717 maunds or 72·12 per cent. of the resin distilled, which is a slight improvement on the previous year. The turpentine obtained from primary distillation was 70,974 gallons as against 52,701 gallons last year. The average price obtained for resin was Rs. 17-4-0 per maund as compared with Rs. 17-8-3 per maund last year, but there was an increase of Re. 0-14-0 per gallon on the average price of quality I turpentine.

Miscellaneous.

251. A scheme for re-organization of the superior staff in connection with the development of the Department's work has been submitted to Government.

Timber works and labour.

252. The development of departmental exploitation renders the creation of exploitation divisions staffed by qualified men permanently employed a matter of urgency. Further, in order both to deal with the full yield of the forests and to reduce wastage it seems clear that timber must be extracted from the hill forests in the shape of logs whenever this is practicable. Mechanical means of transport will be required in a number of forests to enable them to be worked at a profit. Both labour and transport are becoming increasingly difficult to obtain, and in the case of sawyers exorbitant advances are being demanded against a not very binding promise to work.

In connection with the future working of the hill forests one of the Consulting Forest Engineers to the Government of India has been touring the Bashahr and Kulu Divisions since May. With his aid a number of projects have been drawn up, but their operation will call for the employment of specially-qualified engineers and subordinates.

Rates and prices.

253. Rates for almost every kind of forest work have perforce been raised during the year, and in consequence it was found impossible to supply timber to the North-Western Railway

at the prices agreed on for the three years ending March 1922. Even with the enhancements accepted by the Railway authorities some of the less favourably-situated forests can only be worked at a loss. Throughout the year prices obtained for timber in the open market have been good and in some cases unduly inflated.

Mechanical means of transport.

254. Large quantities of wood are lying cut in Changa-Manga and, with carts increasingly difficult to obtain even at greatly enhanced rates, an effort is being made to meet the situation by laying a steam tramway. There are, however, many obstacles to getting suitable track at short notice in India or in England.

Wire ropes for a number of temporary ropeways for use in the hills are being obtained from England, but the inevitable delay in delivery has already involved extra expense on coolie carriage, and much timber sawn last year has still not reached the plains depôts.

A scheme for a permanent ropeway from the vicinity of Simla to Bashahr is now under examination by an expert. Although this line is primarily required for the import of foodstuffs for labour employed in Bashahr it may render feasible the export of small timber which cannot be floated and is now wasted. There is also the possibility that the Bashahris might learn to depend on imported food-grains and devote their land to the more remunerative cultivation of potatoes, or to the increased production of timber.

Bamboos.

255. Steps have been taken to create a market for the whole yield of the Kangra bamboo forests. Delivery has been undertaken further afield than usual, and a number of Government departments requiring bamboos are being supplied direct. At the instance of Army Headquarters a scheme for the oil treatment of bamboos to render them immune from attack by borers is under examination.

Financial Results.

256. The financial results are given in section 43; the year's working shows a surplus of Rs. 23·33 lakhs, and the cash surplus of Rs. 15·23 lakhs which exceeds the previous highest surplus (last year's) by nearly six lakhs.

ARBORICULTURE.

257. The triennial report which was due this year has been postponed until next year.

31.—Mines and Quarries.

Mines.

258. The number of collieries and other mines worked under the Indian Mines Act was 23. Of these four are Government Salt Mines, eight collieries (six in Jhelum, one in Mianwali, and one in Shahpur), and eleven slate, lime and stone mines (three in Gurgaon, two in Gurdaspur, five in Kangra, and one in Hoshiarpur).

The amount of mineral raised, and its value, as compared with 1916, 1917 and 1918, is as follows :—

—	MINERALS, IN TONS.				VALUE, IN RUPEES.			
	1916.	1917.	1918.	1919.	1916.	1917.	1918.	1919.
Coal ...	47,448	49,868	48,587	39,894	3,20,026	3,76,192	5,70,281	3,82,166
Salt ...	160,356	152,360	158,512	174,974	4,09,244	3,88,809	4,04,539	4,60,575
Slate, stone and lime.	7,315	8,860	8,462	9,076·39	1,07,890	1,07,913	1,31,370	1,33,256
Potash ...	...	181	134	83	...	928	687	423

The decrease in the coal mines is attributed to labour difficulties, although in the collieries wages increased by more than 50 per cent. and in the salt mines by 20 per cent.

The health of the operatives was generally good and sanitation sufficient.

Other minerals.

259. Minerals which do not come under the Indian Mines Act are :—Gold (by washing), petroleum, alum shale, block-kankar, limestone, gypsum, antimony, building and sandstone. The outturn and value of these minerals during the year were as follows :—

District.		Name of Mineral worked.	Total amount of Mineral raised.	Total value of Mineral at the Mine.
				Rs.
Ambala	...	Gold by washing ...	27·93 ozs.	2,198
Attock	...	Ditto ...	64 ozs.	4,000
Jhelum	...	Ditto ...	38·8 ozs.	2,716
Total	...	...	130·73 ozs.	8,914
Attock	...	Petroleum ...	113,360 gallons	14,170
Mianwali	...	Do. ...	970 "	191
Ambala	...	Alum shale ...	3,306 tons	9,000
Do.	...	Block-kankar ...	114 "	128
Jhelum	...	Limestone ...	21,504 "	48,782
Do.	...	Gypsum ...	4,719 "	10,705
Do.	...	Antimony ...	32 ozs.	32
Do.	...	Sandstone ...	1,840 tons	3,900
Do.	...	Building stone ...	856 "	100
Simla	...	Ditto ...	9,297 "	2,172

The Attock Oil Company have begun the construction of their refinery at Rawalpindi, and proceedings are in train for laying a pipe line from the works at Khaur to this refinery.

32.—Industries and Manufactures.

Constitution of Industries Department.

260. The year under report saw the constitution of a separate Department of Industries under a Director, who also undertook the duties of Director of Civil Supplies and Controller of Munitions.

Progress.

261. In the Government Central Weaving School which consisted of a small weaving class, a hosiery class, and a Zenana class, 24 students were trained in the art of weaving or the use of hosiery machines, and the average number of women who attended the Zenana class each month was 23. The Textile Assistant with his weaving staff was transferred to the village of Sham Churasi, in the Hoshiarpur District, which has a large weaving population, and it is proposed to maintain the school there until the local weavers have thoroughly learnt the use of the fly-shuttle loom. The Zenana class remained in Lahore.

In the Government Dyeing School, Lahore, under the supervision of Mr. S. R. Khosla, A.M.S.T., 34 students

were under training. The great achievement of the Dyeing School has been to attract the interest of capitalists who either own or intend establishing weaving factories. The Dyeing School also helped dyers and factory owners by the supply of—

(*a*) alizarine ; (*b*) useful information regarding source and price of colours ; and (*c*) expert advice in dyeing yarn and leather with fast colours.

Factories.

262. The number of factories registered under the Factory Act rose to 247—an increase of 44, which is chiefly due to the erection of new cotton-ginning factories in the Canal Colonies and of two new flour mills at Lyallpur and Badami Bagh. Of the total factories 230 actually worked, but at least 30 were operated for only one cotton season.

The Factories Act.

263. The administration of the Factories Act during the year was, to some extent, ineffective owing to the absence of the permanent Factory Inspector on military duty until the end of cotton season, 1918-19, and then on six months' leave during the summer.

Water-supply and sanitary conditions were generally satisfactory, but the lighting arrangements in cotton-ginning factories showed no signs of improvement—the lighting of the dangerous line shaft being specially defective. Ventilation in textile as well as in cotton-ginning factories is still unsatisfactory. The rise in wages, especially of unskilled labour, was maintained throughout the year.

The number of accidents reported increased noticeably from 160 to 241. Of these 195 occurred in the Railway Shops and other Government factories while 46 took place in other (mainly seasonal) factories.

Towards the end of the year revised factory rules were brought into force.

33.—Trade.

Rail and River-borne Trade.

Total Trade.

264. Contrary to the experience of the two previous years the balance of trade proved unfavourable to the Province during the year

under review: and imports exhibit in volume a considerable, and in value a slight, increase; while exports disclose a marked decrease in both volume and value.

Net Imports—
(a) Increases.

265. The following statistics show some of the more noticeable increases :—

Name of Article.	Weight, in lakhs of maunds.	Value, in lakhs of rupees.
Kerosene oil	6,75	52·75
Timber, excluding railway sleepers	1,05	29
Materials of other sorts	12	103·25
All other articles of merchandise	15·5	78

The first three of these four articles had been imported in unusually small quantities in the preceding year. Some commodities show a considerable increase only in value, *e.g.*, Indian piece-goods, Rs. 241·25 lakhs; manufactured wood, Rs. 34·5 lakhs; unwrought brass, Rs. 23 lakhs; oil-seed (*til*), Rs. 14·75 lakhs; imported wine and spirits of all kinds, Rs. 12·5 lakhs; and hardware and cutlery, Rs. 11·75 lakhs. The net imports of wrought-iron and steel advanced by 3·25 lakhs of maunds in weight, but declined by Rs. 22·5 lakhs in value.

(b) Decreases.

The chief decreases in net imports were :—

Name of Article.	Weight, in lakhs of maunds.	Value, in lakhs of rupees.
Coal and coke for railway purposes	55	27·75
Rice not in the husk	10	44·25
Gunny bags and cloth	2·5	80·5
Sugar, refined and unrefined	20·75	71
Gur, rab, etc.	3·5	11·5
Fresh fruits and vegetables	1·25	10·75

While these decreases were generally due to high prices, other causes contributed to reduce the volume of trade, among which may be mentioned an inadequate supply of railway wagons for the carriage of coal and coke; restrictions imposed in other provinces on the export of rice; reduced demand for gunny bags owing to restricted export of grain; larger demand for Indian piece-goods in place of the more expensive foreign articles; and curtailment of sugar imports owing to increased provincial production.

Net Exports—
(a) Increases.

266. The most important increases were—

NAME OF ARTICLE.	Weight, in lakhs of maunds.	Value, in lakhs of rupees.
Raw cotton	6·25	55·25
Jawar and *bajra*	7·75	37·25
Rice in the husk	3·50	16·25
Other oil-seeds	2·75	18·25

(b) Decreases.

The principal decreases were—

NAME OF ARTICLE.	Weight, in lakhs of maunds.	Value, in lakhs of rupees.
Hay, straw, and grass	26·5	34·75
Gram and pulse	111·75	559·25
Wheat	61·75	218
Wheat flour	4	14
Other grains	16·25	55
Rape and mustard seeds	22·75	72·5
Salt	4	30·25

The *rabi* harvest compared unfavourably with that of the preceding year, and the restrictions on export hampered the movement of food-grains. The requirements of expeditionary forces were also smaller.

Treasure.

267. The net imports of gold bullion decreased by Rs. 29·5 lakhs, and those of silver bullion by Rs. 16 lakhs. There was a re-appearance of gold coin which was imported to the value of Rs. 1·5 lakhs. The net imports of silver coin declined by Rs. 46·15 lakhs owing chiefly to restrictions on its issue from treasuries.

Distribution of trade.

268. Karachi has further intensified its connection with the Punjab, its share of the provincial exports having advanced from 27 to 31 per cent. owing to large exports of raw cotton and rape and mustard seed. The other principal customers are Bombay Port and the United Provinces. Exports to the former fell from 23 to 20 per cent. owing to decreased exports of raw cotton, gram and pulse; those to the latter remained steady at 16 per cent. Imports from Karachi rose from 14 in the previous year to 18 per cent., while those from Calcutta shrank from 18 to 16 per cent. The percentages of imports from the United Provinces and Bombay were nearly the same as last year.

Among the internal blocks of the Province the most important are the Cis-Sutlej territory (excluding Delhi City) and the territory between Sutlej and Jhelum, which together absorb about three-quarters of the imports and furnish about 81 per cent. of the exports. The share of the former block decreased from 36 to 31 per cent. in imports and from 51 to 43 per cent. in exports; that of the latter similarly increased from 34 to 38 per cent. and from 31 to 37 per cent.

Trans-Frontier Trade.

Volume.

269. As compared with the year 1918-19 imports (excluding treasure) decreased from 34 thousand to 26 thousand maunds in weight and from Rs. 22 lakhs to Rs. 17 lakhs in value. Exports decreased from 19 thousand to 17 thousand maunds in weight, but increased from Rs. 39 lakhs to Rs. 44 lakhs in value.

Trade with Afghanistan.

270. Practically, the only articles of import are drugs and fruit. A large increase under drugs was balanced by a similar decrease under fruits. High prices stimulated imports of the former; shortage of the fruit crop in Afghanistan was responsible for the contraction in the latter. As regards exports there was a decrease in weight and value under European piece-goods. The trade in Indian piece-goods was resumed with exports amounting to 264 maunds in weight and Rs. 31,680 in value. There was a decrease in value under raw leather, but an increase under manufactured leather. Under iron there was an increase in weight and value; of refined sugar 56 maunds were exported as compared with *nil* in the previous year. There was a small increase in the exports of tea.

Trade with Central Asia—Imports.

271. Imports decreased by 3,656 maunds in weight and by Rs. 4·40 lakhs in value. Under horses and ponies there was an increase in number and value. With rates of hire comparatively low and prices of horses, etc., at Leh correspondingly high, animals were sold there in unusually large numbers. Similar remarks apply to sheep and goats. Under *charas* there was an increase in weight and value. This expanded business was due to the anxiety of traders to import the commodity in larger quantities before the enhanced duty to be imposed upon it took effect on the 1st April 1920. The decrease in weight (despite an increase in value) under Tibetan salt was due to reduction of output of this salt caused by flooding of the salt lake in Tibet. Decreased production in Khotan was again responsible for a decline under raw silk in weight and value. The imports of raw wool decreased in weight and value owing to heavy mortality of cattle in Tibet.

Exports.

272. Of exports there was a decrease of 2,477 maunds in weight, but an increase of Rs. 4·63 lakhs in value. Coral showed a decrease in value owing to the disturbed state of Russian Turkistan; but there was an increase in weight and value under European cotton twist and yarn and cotton piece-goods by reason of the absence of Russian competition. Under drugs and medicines there was a decrease in weight and value. The enormous rise in the cost of carriage now renders unprofitable the export from this country of

cheap drugs such as dry leaves of *sana,* etc. Under indigo there was an increase of 559 maunds in weight and of Rs. 13·34 lakhs in value. Owing to the scarcity of aniline dyes in the Turkistan markets the exports of dyeing materials (other kinds) were in excess of consumption in the preceding two years and this year show a falling-off in value. The decline in the export of wheat and husked rice follows as a natural consequence of the decreased import of salt with which they are usually bartered. The trade in hides and skins discloses a contraction in weight and value. It appears that otter skins exported from Bengal are being replaced in Yarkand by Chinese furs. Surplus stocks of the preceding two years and high prices are responsible for the decreases in value under unmanufactured leather; of weight and value under manufactured silk and manufactured wool; as well as under spices and sugar (refined and unrefined). Kerosene oil is said to be advancing in popular estimation in Yarkand with the result that there was a larger export of petroleum. Paints and colours exhibit an increase in weight and value owing to the same cause as in the case of indigo. Exports of black and green tea also increased.

Trade with Tibet.

273. Imports declined by 3,760 maunds in weight and Rs. 83,778 in value. There were decreases in weight and value under borax and salt (partly owing to shortage of transport sheep and goats) and under raw wool owing to the competition of traders from districts other than Simla. Exports increased by 1,122 maunds in weight and by Rs. 20,000 in value. The increases occurred chiefly under (1) cotton piece-goods, (2) other spring crops, (3) brass and copper, and (4) Indian black tea.

Treasure.

274. Imports of gold (both bullion and coin) from Central Asia decreased from Rs. 2·30 lakhs to Rs. 1·45 lakhs, and those of silver from Rs. 13·34 lakhs to Rs. 10·11 lakhs. The imports of Russian paper increased from Rs. 5·69 lakhs to Rs. 6·20 lakhs. There was no export of gold to Central Asia, but exports of silver increased slightly. The only Russian paper exported was that returned from Amritsar (after the issue of the orders prohibiting its import) for deposit in the Leh State treasury. Its value was Rs. 24,500. Exports of silver coin to Tibet increased to a small extent.

Joint Stock Companies.

275. The number of registered companies has increased by three to 79. Five public companies went into liquidation ; four new public companies and four new private ones were registered. There is as yet no indication of any awakening of Joint Stock enterprise. Trade and commerce continue to monopolise the attention of local capitalists. Paid-up capital increased by a little over eight lakhs of rupees. The liquidation of defunct companies is proceeding satisfactorily.

34.—Buildings and Roads.

Total Expenditure.

276. The outlay on public works in the Buildings and Roads Branch during the year amounted to Rs. 100·93 lakhs, an increase of slightly over Rs. 22·81 lakhs as compared with the previous year. Imperial Military and Imperial Civil Works accounted for Rs. 6·48 lakhs of this amount while Rs. 4·25 lakhs were spent on contribution works. The expenditure on Provincial Civil Works rose to Rs. 90·19 lakhs, or approximately Rs. 22·86 lakhs more than last year's figures.

Imperial Military Works.

277. The only Military Work of any importance that was completed was the new Headquarters and Armoury buildings for the 5th Punjab Light Horse at Lahore.

Imperial Civil Works.

278. Work on the new combined telegraph and telephone office at Simla continued during the year. The realignment of roads necessitated by the construction of the new building was finished and in the building itself the sub-basement and basement floors were completed in those portions taken in hand. The replacement of the decayed stone and rebuilding of the bell tower at Viceregal Lodge, Simla, were carried to conclusion. Motor garages and subsidiary buildings for the postal service on the Kangra Valley and Dalhousie roads, as well as at Rawalpindi and Kohala, were completed.

Provincial Civil Works.

279. *Administration.*—In connection with the new Secretariat Scheme at Charing Cross, additional land was taken up and the statement of the accommodation required was completed. On the return of the Consulting Architect from

Europe the planning will be taken in hand. The Lahore and Simla housing schemes were advanced, the three large houses on the Brockhurst Estate, Simla, being finished and the old Brockhurst House dismantled. It is intended to construct a set of flats on this site. At Lahore nine residential houses were completed and all were occupied during the winter of 1919-20.

280. *Educational.*—The provision and improvement of Educational buildings continue. A Normal School with Boarding Houses is under construction at Ghakkar. The Normal School at Lyallpur was extended to accommodate a training class and additions are being made to the High School Boarding House at Mianwali. Land was acquired for a hostel, Head Master's residence and office for Inspector of Schools at Jullundur. The site for the proposed Training College at Sanawar was cleared while the construction or extension of the Boarding Houses and Normal and High Schools at Karnal, Hissar and Rohtak made good progress.

281. *Jails.*—Works of some importance were carried out at the Borstal, Multan and Montgomery Jails.

282. *Police.*—The construction of the new Police Lines at Amritsar was practically completed while work on three Police Stations with married quarters at Tandlianwala, Sayadwala and Luddan and on a Police Hospital at Dharmsala was put in hand.

283. *New District of Sheikhupura.*—Works in connection with the formation of the new district comprise buildings for all branches of the administration. The new Division was opened in October and arrangements were made to commence the manufacture of bricks and collection of other material. Coal difficulties and the revision of the old projects retarded building, but a start was made on the new District Court and Treasury.

Communications.

284. *Communications Board.*—A Provincial Board of Communications, consisting of official and non-official members, was constituted during the year under review. It is a central body dealing with all questions of communications whether by road, rail or water, with the object of ensuring that all forms of communications are so designed as to serve best the general needs of the public. Sub-committees have been appointed to advise on the various lines of communications in each sphere.

Trunk roads are being brought up to the standard required for the increasing use of mechanical transport by the construction of additional, and strengthening of existing, bridges. The bridging of the Bishendore and Bhaikhan Nullahs between Gujrat and Rawalpindi and of the Koth bridge between Lahore and Gujranwala was completed.

Certain flooded gaps on the Grand Trunk Road north of Lahore and between Jullundur and Beas are being dealt with, and the construction of the Chenab and Palkhu bridges near Wazirabad as well as of the road bridges over the Tangri and Omla streams was pushed on. Progress on the Fatehjang-Khaur Road was seriously affected by its proximity to the military operations on the North-West Frontier Province which practically drained the locality of its limited supply of labour and transport. The work, however, was within measurable distance of completion by the end of the year. Improvements were also being carried out on the Rawalpindi-Kohala, Hindustan-Tibet, Delhi-Gurgaon and Lahore-Ferozepore and other roads, and extensive arrangements were put in hand for the thorough repair and improvement of the Lahore-Sheikhupura Road.

Contribution works.

285. Additional works in connection with the King Edward Memorial Hospital Scheme at Lahore as well as additions and alterations to the King Edward Memorial Sanitorium at Dharmpur were completed. The Lyallpur Water Supply was improved and drainage schemes were initiated at Lala Musa and Sillanwali (in the Shahpur District).

Floods, Famine, Earthquake, etc.

286. Damage estimated at Rs. 70,000 round was caused to the Church, District Court, Tahsil, Dâk Bungalow, Post and Telegraph Office and other Government buildings at Gujranwala during the disturbances of April 1919. All these buildings, as also the Munsiff's Court at Kasur, were burnt down. Minor damage was also done to the Telegraph Office at Amritsar.

Sanitation.

287. With the formation of the Sanitary Sub-Division the Sanitary Engineer is now in a position to keep a closer control and supervision over the more important sanitary projects.

Two Assistant Sanitary Engineers are also being recruited from England.

Consulting Architect.

288. The value of the work designed by the Consulting Architect continues to increase. It amounted in the year under review to nearly Rs. 50 lakhs, or some Rs. 17 lakhs more than last year.

The recruitment of an Assistant Consulting Architect who joined in March should do much to facilitate progress on the several schemes which await architectural treatment.

289. Various urgent projects had to give way to the preparation of the drawings required for the temporary Legislative Council Chamber and additional offices at the Civil Secretariat, Lahore. Designs were prepared for the conversion of the old Council Chamber at Government House, Lahore, into a suite of rooms for distinguished visitors. An outlay plan for the new district of Sheikhupura; plans for the Punjab Light Horse Headquarters and Armoury and the Government College Hostel buildings at Lahore, and for the European Training College at Sanawar are some of the more important works on which the Consulting Architect is busy.

Electrical Engineer.

290. No new electrical projects were prepared in the year under report, but applications for 16 licenses under the Electricity Act were received. Seven of these were withdrawn, two were gazetted and the remainder are under consideration of the military authorities. The Electrical Engineer continued to carry out the duties of Electrical Engineer to the North-Western Railway up to the end of 1919 when he was relieved of the latter charge. He also carried out the duties of Electrical Advisor to the Simla Municipality for some part of the year in addition to his own duties.

Establishment.

291. All officers (with one exception) who had been retained on military duty rejoined. Five newly appointed Assistant Engineers were recruited, and Colonel B. C. Battye was placed on deputation for the preparation of the Sutlej River Hydro-Electric Survey.

The percentage cost of establishment to the total cost of works and repairs executed was 14 per cent. against 14·4 per cent. for the preceding year.

34-A.—Railways.

292. There were considerable restrictions on booking of goods owing to the shortage of rolling stock and the large demands for freight by the military authorities. Booking on certain sections of the North-Western Railway was entirely closed to the public for extended periods, exceptions being made in the case of special articles or of holders of special certificates.

35.—Irrigation.

293. The direct receipts and expenditure during the year were Rs. 331·46 lakhs and Rs. 128·51 lakhs, respectively, as compared with Rs. 286·35 lakhs and Rs. 127·83 lakhs for 1918-19, and Rs. 252·12 lakhs and Rs. 141·32 lakhs, the averages of the triennium ending 1918-19. The expenditure, as divided between Capital and Working Expenses, was Rs. ·67 lakh and Rs. 129·18 lakhs, respectively. In the former case the expenditure was more than balanced by realizations effected from the sale of the surplus stores, tools and plant rendered available by completion of works; from colonists on account of cost of water-courses which Government had built for them in advance in order to secure rapid development of irrigation on the Triple Canal system, and from other miscellaneous sources.

General.

The indirect revenue credited to the canals on account of enhanced land revenue, etc., amounted to Rs. 133·59 lakhs as against Rs. 130·91 lakhs, the average of the triennial period ending 1918-19.

294. The total area irrigated by works of all kinds under the control of the Irrigation Department was 10,456,658 acres, showing an increase of 1,440,674 acres and 1,236,755 acres, as compared with the previous year, and the average of the previous triennium, respectively.

Area irrigated.

295. The capital outlay (direct and indirect) incurred on canals classed as Productive Major Works was a minus quantity (*viz.*, Rs. ·54 lakh), thus leaving the total outlay to date at about Rs. 2,400 lakhs (including 155 lakhs contributed by Native States).

Finance.

The net revenue earned by the Imperial Canals amounted to Rs. 324·04 lakhs or Rs. 14·43 per cent. on the capital invested to date, *viz.*, Rs. 2,244·57 lakhs.

Major Works.

296. The areas irrigated by and the financial results of each of the Major Works are shown in the following statement :—

(Thousands omitted.)

1	2	3	4	5	6	7	
Serial No.	Name of Canal.	Area irrigated.	Gross Income.	Working Expenses.	Net Income.	PERCENTAGE PROFIT ON CAPITAL OUTLAY.	
						Excluding Interest Charges.	Including Interest Charges.
		Acres.	Rs.	Rs.	Rs.		
1	Western Jumna	855	(a) 35,66	(a) 15,77	19,89	11·17	7·92
2	Sirhind ...	1,549	(b) 43,61	(b) 13,68	29,98	11·63	8·38
3	Upper Bari Doab.	1,253	52,27	15,25	37,02	16·61	13·25
4	Lower Bari Doab.	869	45,62	12,82	32,80	14·41	10·99
5	Upper Chenab	543	27,69	14,79	12,90	3·63	0·29
6	Lower Chenab	2,455	1,68,43	22,27	1,36,16	44·72	41·38
7	Upper Jhelum	299	12,10	10,12	1,98	0·44	−2·95
8	Lower Jhelum	819	42,93	10,11	32,81	19·32	15·89
9	Upper Sutlej Inundation Canals.	543	7,44	4,50	2,94	16·15	12·94
10	Sidhnai Canal	284	6.57	1,23	5,34	40·05	36·76
11	Indus Inundation Canals.	240	5,33	3,10	2,22	7·46	4·14
	TOTAL ..	9,508	4,47,64	1,23,59	3,24,04	14·43	11·08

(a) Excludes Patiala State.
(b) Excludes Native States—Patiala, Nabha and Jind.

Minor Works.

297. On all the Imperial Minor Works not classed as productive, including the two canals for which Capital and Revenue accounts are kept, the net profit amounted to Rs. 5·42 lakhs as compared with Rs. 8·02 lakhs in the previous year.

There is only one Provincial Canal in operation under the control of the Irrigation Department, *viz.*, the Shahpur Provincial Inundation Canal. This showed a net deficit of Rs. 5,711.

298. The detail of the working of each canal is given below:—

MAJOR WORKS—CANALS IN OPERATION.

Western Jumna Canal.

299. After a summer of intense heat the monsoon broke late in the second week of July, and withdrew early in the first week of September. There was fairly good rainfall during May and June, when demand was intense, and, consequently, the area of *kharif* sowing was large. The early cessation of the monsoon created a very keen demand for *kharif* last waterings and preliminary waterings for the *rabi* crops. Fortunately, however, the supply in the river was fairly good during September, October and November. Thus, not only was the *kharif* area increased, but a large area of *rabi* crops was sown. Some rain fell in December and February, and, though not as much as was required, it was timely and helpful, particularly in the dry tracts of Rohtak and Hissar. The Canal was in flow for 158 days during the *kharif* season and 178 days in the *rabi* season.

The total area irrigated, including Patiala and Jind States, was 854,982 acres (424,436 acres in *kharif* and 430,546 acres in *rabi*) as compared with 758,105 acres (356,729 acres in *kharif* and 401,376 acres in *rabi*) the average of the triennium ending 1918-19. The latter figures were, however, affected by the adverse irrigational conditions of two years, *viz.*, in 1917-18 rainfall considerably in excess of the normal and in 1918-19 the influenza epidemic.

The net revenue received by the Patiala State on their channels on the Sirsa Branch amounted to Rs. 1·90 lakhs, or 16·28 per cent. on the capital invested, as compared with an average of Rs. 1·68 lakhs or 14·45 per cent. for the

triennium ending 1918-19, and Rs. 1·97 lakhs or 16·98 per cent. of the previous year.

Sirhind Canal.

300. June was practically rainless and the regular monsoon did not break till July, but was well maintained during that month and August. No abnormal falls or flooding of the country occurred. In the submontane tract near Rupar showers were frequent but small, with the result that there was a thorough soaking of the soil. The actual rainfall at Rupar for the monsoon was the lowest on record. The monsoon closed early. The rainfall of September was slight, while October and November were rainless. Light and fairly general falls in December were timely and helpful.

The demand owing to exceptionally heavy and early sowings of *kharif* crops was very keen and accentuated by the early stoppage of the monsoon and requirements for maturing *kharif* and sowing *rabi* crops. Supply was sufficient throughout the *kharif* season, but as usual there were rotational turns in the Branches in the *rabi* season.

The area irrigated by the British Branches amounted to 1,004,917 acres, while that irrigated by Native States Branches was 544,200 acres. The corresponding averages of the triennium ending 1918-19 were 777,130 acres for the British Branches, and 483,882 acres for the Native States Branches. The *kharif* area, being 403,647 acres for the British Branches, and 233,197 acres for those of the Native States, was the largest on record.

The Native States have also had a prosperous year, having collected Rs. 25·37 lakhs or Rs. 5·60 lakhs more than in 1918-19.

Upper Bari Doab Canal.

301. The monsoon was timely and well distributed, beginning in July with normal intensity. It came to an end early in September. This cessation was favourable for increasing the area under canal irrigation, as a large area that was sown on rains earlier in the season received canal water in September. The *kharif* area (639,019 acres) has, therefore, surpassed all records. October was almost rainless and November had only a passing shower, but there was good rainfall in December to March, which helped both irrigated and unirrigated crops. The *rabi* area which amounted to 613,564 acres was, therefore, normal. The area irrigated, *viz.*, 1,252,583 acres, also beats all records of the past 31 years.

The net income was Rs. 37,01,576, or 16·61 per cent. on the capital invested, as compared with 16·89 per cent. in the previous year. The decrease in the net income was due to an increase of Rs. 2 lakhs under working expenses.

Lower Bari Doab Canal.

302. The Canal was in flow for 322 days (175 days in *kharif* and 147 days in *rabi*) against 305 days in the previous year. The monsoon broke on the 22nd July, a week later than usual. The rainfall was sufficient during the *kharif* but inadequate during the *rabi* season. The demand for canal water was keen throughout the year.

The progress of canal irrigation, as stated in the previous year's reports, has lagged behind that estimated in the project owing chiefly to the delay of a year in the completion of the Upper Jhelum Canal and to the backwardness of colonization, but it has now practically reached the project figures, being 869,432 acres as against 871,308 acres.

The net revenue shows a decline when compared with the figures of the previous year, which included a sum of Rs. 5·81 lakhs on account of arrears for indirect receipts.

Upper Chenab Canal.

303. The *kharif* season was a favourable one, while the *rabi* season was normal. The monsoon began on the 13th July and continued till the 5th of September, and, though the heavy rainfall in July flooded the low-lying rice lands and consequently deferred rice sowings, yet this was more than compensated for during August, with the result that the area irrigated in the *kharif* season was a record one, it being 303,845 acres as compared with the previous maximum of 285,917 acres in *kharif* 1916. The area irrigated during the *rabi* season was also a record, being benefited by the timely rainfall during the maturing period.

The area irrigated during the whole year, *viz.*, 542,656 acres, was, however, still short of the project forecast by 105,711 acres. The Upper Chenab Canal, however, being a feeder channel for the Lower Bari Doab Canal, its financial merits as a commercial proposition must not be judged by its own results independently of those of the Lower Bari Doab Canal.

Lower Chenab Canal.

304. The *kharif* season was particularly hot and dry, resulting in a keen demand for canal water. About the 26th July the rains broke, and there was widespread rainfall, particularly

heavy in the east, and moderately so in the west, doing a lot of good to the standing crops and helping the *rabi* sowing operations considerably. Some small falls of rain during the winter months at suitable intervals also benefited the crops generally.

The Canal was closed for 17 days in *kharif* and 15 days in *rabi*. The water-supply was, on the whole, satisfactory. The area irrigated, 2,455,225 acres (851,161 acres in *kharif* and 1,604,064 acres in *rabi*, was the largest ever recorded both for the *kharif* and the *rabi* seasons.

The accumulated net profits after defraying interest charges have increased from Rs. 15,19·87 lakhs to Rs. 16,55·13 lakhs which is more than 5 times the capital cost of the Canal.

Upper Jhelum Canal.

305. During the *kharif* season the rainfall was mainly confined to the months of July and August. September was again a dry month, and the river supply fell rapidly. During the earlier part of the *rabi* season the demand for water exceeded the supply, but there was good rainfall in December and January, and, generally speaking, water was ample during the latter half of the season.

The area irrigated was 298,875 acres, as compared with 246,609 acres in the previous year. Development of irrigation, although satisfactory, is still short of the project forecast of 348,000 acres.

Lower Jhelum Canal.

306. The area irrigated was 818,900 acres. Of this the area of 284,070 acres irrigated during the *kharif* season was the largest on record. The area irrigated during the *rabi* season, though less by nearly 57,000 acres than the average of the triennium ending 1915-16 owing to restriction of water-supply consequent upon the opening of the Upper Jhelum Canal, does not compare badly with the results of the years subsequent to 1915-16.

The decrease in the net return (which was 1·17 per cent. less than that of the preceding year) is due to—

(*i*) an increase in the working expenses by about Rs. 1·51 lakhs; and

(*ii*) a decrease in the indirect receipts from which a deduction larger by Rs. 2·36 lakhs than in the previous year has been made to meet increased cost of administration, etc.

Upper Sutlej Inundation Canals.

307. The river supply during the months of May, June and July was high and the canals were drawing their full share. There was no trouble this year with the heads as was experienced last year owing to river erosion. The net area assessed was 383,532 acres, which was more by 89,935 acres than in 1918-19. The falling-off in net revenue is attributable to decrease of 82,187 acres in the area assessed during the two seasons.

Sidhnai and its subsidiary Canals.

308. The canal had a better supply during the *rabi* season than was the case in the previous year, with the result that wheat was sown more extensively. The irrigation effected was 139,749 acres in *kharif* and 144,037 acres in *rabi*, as compared with 121,212 acres and 108,185 acres in the corresponding seasons of the previous years.

The total income from all sources amounted to Rs. 6·57 lakhs, and the working expenses to Rs. 12·3 lakhs, giving a net revenue of Rs. 5·34 lakhs or 40·05 per cent. on the capital outlay against 53·82 per cent. in the preceding year. The falling-off in net revenue is attributable to a deficiency of about 61,000 acres in the area irrigated during the two seasons.

Indus Inundation Canals.

309. The area irrigated was 166,489 acres in *kharif* and 73,154 acres in *rabi*, as compared with 121,144 acres and 59,953 acres in the corresponding seasons of the previous year. The increase in irrigation was due to timely rainfall and favourable climatic conditions. The total failed area amounted to 40,674 acres during *kharif* and 15,505 acres during *rabi*. The failure was mostly due to bad soil, insect pests, and frost. On certain channels there are large tracts in which the soil is poor and requires a great deal of labour to be expended on it, which the Biloch cultivator has neither the inclination nor the energy to supply.

The income was Rs. 5·33 lakhs, expenditure Rs. 3·10 lakhs, giving a net return of 7·45 per cent. on capital outlay, compared with 5·32 per cent. last year.

Minor Irrigation Works.

Shahpur Imperial Inundation Canals.

310. The canals were opened early in April and closed in September.

The area irrigated was 45,809 acres as against 16,727 acres in the preceding year and 35,376 acres and 38,750 acres, the averages of the two triennia ending 1915-16 and 1918-19, respectively. The increase was due to favourable rainfall and river-supplies.

The net revenue of Rs. 8,888 brought a return of 3·95 per cent. on the capital outlay.

Ghaggar Canals.

311. The operations of the year on these canals resulted in a loss of Rs. 28,817, which is equivalent to 7·61 per cent. on the capital outlay as compared with a loss of Rs. 8,514, equivalent to 2·24 per cent. in the previous year. This high percentage of loss was due to—(*i*) the comparatively low *rabi* area of 1918-19, and (*ii*) an adjustment in the year's account of establishment charges due to an erroneous charge made in the previous year. The Ghaggar Canals, constructed as a productive work, are financially a failure and will continue to be so as long as the basis of assessment remains as it does at present. The canals are virtually a valuable protective work, and the basis of assessment is under re-examination with the Settlement Officer of this tract.

Lower Sutlej Inundation Canals.

312. The area irrigated was 301,555 acres as against 189,916 acres in the preceding year and 306,328 acres, the average of the previous triennium.

The failed area amounted to 54,871 acres (35,852 acres in *kharif* and 19,019 acres in *rabi*) compared with 44,636 acres in the preceding year.

The net revenue amounted to Rs. 25,767 against Rs. 1·92 lakhs in 1918-19. The decrease was due to (*a*) a decline in the area irrigated and matured during the *rabi* season of 1918-19, and (*b*) an increase of expenditure under working expenses.

The canals, although poorly supplied in the early part of the crop owing to low river-supplies, ran at their utmost capacity in the middle of the season and met all demands throughout.

Chenab Inundation Canals.

313. The River Chenab rose sufficiently high in the beginning of the flow season to admit of most of the canals being opened in time, but towards the end of the season the supplies were not as good as usual. On the whole, however, these

were timely and generally sufficient to run full canals, and the total area irrigated, 182,676 acres, was better than that of the preceding year.

The net income was Rs. 1·89 lakhs against Rs. 3·02 lakhs in the preceding year.

Muzaffargarh Inundation Canals.

314. The area irrigated (364,350 acres) was practically the same as the average (364,032 acres) of the triennium ending 1918-19.

The net revenue amounted to Rs. 3·27 lakhs against Rs. 2·99 lakhs in the preceding year.

With a view to relieving distress due to a widespread epidemic among the cattle the Kot Sultan and the Magisson Canals, which had favourable heads, were allowed to run up to the end of December and October 1919, respectively, with very beneficial results.

Shahpur Provincial Inundation Canals.

315. The canals were opened early in April. The flow of the river was, on the whole, favourable and the canals worked satisfactorily during the year. The area successfully matured and assessed was 34,175 acres as against 22,580 acres in the preceding year. The net loss of Rs. 5,711 was due to a decrease in the area irrigated during *rabi* 1918-19 and an increase in working expenses.

CHAPTER V.

REVENUE AND FINANCE.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Land Revenue.—Report on the Land Revenue Administration of the Punjab for the agricultural year ending 30th September 1919.

Canal Revenue.—Administration Report of the Irrigation Department, Punjab, for the year 1919-20.

Excise and Opium.—Report on the Excise Administration of the Punjab for the year 1919-20.

Stamps.—Report on the Administration of the Stamp Department of the Punjab for the year ending 31st March 1920.

Income-tax.—Report on the Income-tax Administration of the Punjab for 1919-20.

Forests.—Progress Report of Forest Administration in the Punjab for 1919-20.

Provincial Revenues.—Audit and Appropriation Report on the Accounts of the Punjab for 1918-19 and Review of the Annual Accounts of the Punjab for the year 1919-20 published in the *Punjab Gazette* dated $\frac{\text{April 30th, 1920}}{\text{November 12th, 1920}}$, Supplement Part II.

Local Funds.—Report on the Administration and Accounts of the District Boards in the Punjab for year 1919-20.

Municipal Revenues.—Report on the working of Municipalities in the Punjab during the year 1919-20.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Statistical Abstract for British India, Volume I—Commercial Statistics.

Volume II—Financial Statistics.

Volume IV—Administrative and Judicial (including area, population and local funds).

Salt.—Report on the Administration of the Northern India Salt Revenue Department for the official year 1919-20.

36.—Gross Revenue and Expenditure.

Revenue.

316. The following table shows the receipts under the various heads of revenue, excluding revenue from salt, in the year under report:—

(In thousands of rupees.)

MAJOR HEADS.	Imperial.	Provincial.	Total.	+ more — less on figures for 1918-19.
Land Revenue	1,56,80	1,56,81	3,13,61	+ 28,17
Opium	8,82	...	8,82	— 1,23
Stamps	38,95	38,94	77,89	+ 16,51
Excise	64,70	64,70	1,29,40	+ 24,22
Provincial rates	...	41	41	+ 10
Customs	24	...	24	+ 1
Income-tax	33,10	22,45	55,55	+ 15,23
Forests	...	38,46	38,46	+ 16,92
Registration	...	5,63	5,63	+ 1,57
Tribute	1,44	...	1,44	— 1
Interest	4,45	2,28	6,73	+ 1,10
Law and Justice—Courts of Law	...	8,17	8,17	+ 1,64
" " —Jails ...	...	5,12	5,12	— 1,64
Police	...	3,30	3,30	+ 1,44
Education	...	5,10	5,10	— 23
Medical	...	80	80	+ 4
Sanitation	...	1,18	1,18	— 44
Agriculture	...	7,46	7,46	+ 46
Scientific and Miscellaneous ...	...	32	32	+ 2
Receipts in aid of Superannuation	91	78	1,69	— 4
Stationery and Printing ...	1 14	1,20	2,34	+ 65
Miscellaneous	19,52	8,57	28,09	+ 13,46
Irrigation—Major Works ...	2,24,15	2,24,14	4,48,29	+ 35,23
" —Minor Works ...	7,76	1,07	8,83	— 42
Civil Works	1,89	4,98	6,87	+ 1,54
Transfers between Imperial and Provincial.	— 59,00	+ 59,00	...	...
TOTAL ...	5,04,87	6,60,87	11,65,74	+ 1,54,30

Expenditure.

317. The gross expenditure, excluding expenditure of the Salt, Military, Railways, Post Office and Telegraph Departments and capital expenditure on canals, was as follows:—

(In thousands of rupees.)

Major Heads.	Imperial	Provincial.	Total.	+ more — less on figures for 1918-19.
Refunds	2,16	2,25	4,41	+ 2,00
Assignments	72	41	1,13	+ 23
Land Revenue	...	57,64	57,64	+ 8,26
Stamps	1,12	1,13	2,25	+ 29
Excise	1,25	1,25	2,50	+ 16
Income-tax	55	55	1,10	+ 52
Forests	...	24,16	24,16	+ 6,20
Registration	...	1,76	1,76	+ 42
Interest	2,91	1,90	4,81	+ 1,01
General Administration ...	4,67	14,42	19,09	+ 2,75
Law and Justice—Courts of Law	...	53,32	53,32	+ 7,11
" " " —Jails ...	...	23,83	23,83	+ 45
Police	...	85,49	85,49	+ 14,26
Education	...	57,26	57,26	+ 4,23
Ecclesiastical	2,47	...	2,47	— 29
Medical	...	14,03	14,03	+ 2,43
Sanitation	...	9,94	9,94	+ 1,88
Political	6,50	...	6,50	— 70
Agriculture	...	20,93	20,93	+ 4,10
Scientific and Miscellaneous ...	...	2,37	2,37	+ 68
Pensions, Territorial and Political.	67	...	67	— 3
Superannuation	19	25,61	25,80	— 26
Stationery and Printing ...	39	9,57	9,96	+ 1,31
Miscellaneous	54	19,96	20,50	+ 29
Famine Relief	14	4	18	— 48
Irrigation, Major Works ...	58,68	58,68	1,17,36	+ 14,33
" Minor Works ...	9,96	4,93	14,29	+ 80
Civil Works	37,43	1,02,48	1,39,91	+ 51,83
Total ...	1,29,75	5,93,91	7,23,66	+ 1,23,69

37.—Land Revenue.

318. The Land Revenue Report gives the figures for land revenue according to the agricultural year, which ends on the 30th September. There must consequently always be a difference between the total collections as calculated by the Treasury on the financial year and the yearly returns furnished by the Financial Commissioners' office.

For the year ending 30th September 1919 the following are the figures of collections, including those on account of previous years, comments on which have already been made in section 10 dealing with demands :—

		Rs.
Fixed Land Revenue	...	2,16,76,998
Fluctuating Land Revenue	...	1,33,07,886
Temporarily excluded from Fixed Land Revenue Roll ...	...	53,169
Other Land Revenue ...	...	53,14,700
TOTAL	...	4,03,52,753

38.—Irrigation.

319. The total capital invested up to the end of 1918-19 on canals in operation classed as productive major works was Rs. 2,244·57 lakhs (apart from contributions by Native States of Rs. 145·98 lakhs). There was no capital expenditure during the year—in fact, the total capital outlay was reduced by Rs. ·54 lakh. The income from all sources, excluding refunds, was Rs. 448·35 lakhs, while working expenses aggregated Rs. 124·31 lakhs and interest charges Rs. 75·19 lakhs. The net profit thus amounted to Rs. 248·85 lakhs, as compared with Rs. 227·32 lakhs in the previous year.

The balance profit from Imperial Canals—Minor Works not classed as productive,—was Rs. 5·42 lakhs as against Rs. 8·02 lakhs in 1918-19. Provincial Canals show a small loss of Rs. 5,711.

39.—Excise.

Income and Expenditure.

320. The gross income from all sources rose from Rs 104·58 lakhs in 1918-19 to Rs. 129·40 lakhs in 1919-20, and the expenditure amounted to Rs. 2·67 lakhs against Rs. 2·42 lakhs in the previous year.

321. The distilleries had a busy year. The issues would have been very much higher but for the special care taken to restrict these in the last two months of the year in order to prevent, as far as possible, profiteering by licensees in view of the prospective increase in still-head duty from the 1st April 1920. The quality of Java molasses received during the year showed some deterioration with the result that two-fifths of a gallon of spirit less per maund were extracted as compared with the previous year. Distribution of liquor from the distilleries to various districts in the Province was considerably hampered in the beginning of the year owing to the disturbances and the Afghan War. The total issues of different kinds of spirit (891,405) exceeded those of the previous year by 71,891 gallons, including 182,204 gallons issued in bond to Native States and Sind.

Distilleries.

322. There was considerable falling off in the beer trade, and the sales decreased from 3,060,755 to 2,525,558 gallons. The quantity brewed in the quarter ending 31st March 1920 amounted only to 268,854 gallons as against 1,007,319 gallons in the quarter ending 31st March 1919. The decline is partly due to the increase on the termination of the war in the volume of imported beer, which was also stimulated by the favourable rate of exchange. It has been reported, as another reason, that the new soldier does not drink like the old one.

Breweries.

323. The consumption of country spirit in the Punjab advanced by 19 per cent. The total number of proof gallons consumed (both plain and spiced) rose from 456,837 to 545,271. Prices were higher, the number of retail shops was less, and there was no epidemic like last year's influenza to account for a sudden resort to spirituous liquor. The only explanation of the increased consumption is that the drinking section of the people has more money to spend, and the rise in prices and the reduction in the number of shops failed to counterbalance this influence. The new freedom of manners and the destruction of old conventions has also had its effect. It is significant that the increase in the consumption of spiced spirit, an article of luxury, is proportionately much greater than the increase in the consumption of plain country spirit, which was once regarded with good reason as the drink of the masses. The sale of plain spirit went up from 293,182

Country spirit.

gallons to 338,316 gallons; while the sale of spiced spirit expanded from 163,655 gallons to 206,955 gallons. There were 863 convictions for drunkenness in the municipal areas as against 729 in the preceding year. The present policy of closure of liquor shops on the occasion of fairs should tend to decrease drunkenness.

Opium.

324. The consumption of opium in the Province fell from 53,372 seers in 1918-19 to 51.358 seers in 1919-20. The very marked diminution in the aggregate consumption of different kinds of opium is a notable feature of recent excise statistics. The decrease appears to be partly due to a change of popular taste, and partly to the careful working of the system by which allotments in excess of local requirements are discouraged. The policy of reducing the number of retail shops to the minimum requirements of a district was followed in certain districts, and altogether 98 shops have been closed since 1913-14. The price of opium to the consumer rose remarkably in some districts, mainly on account of the high license fee and restricted issues. The total receipts from opium rose from Rs. 22·20 lakhs to Rs. 30·55 lakhs, an increase of or about 37·5 per cent. on the figures for 1918-19.

Hemp Drugs.

325. The consumption of *charas* rose from 19,499 seers to 21,327 seers, but that of *bhang* remained practically the same as last year.

Cocaine.

326. The sales of cocaine to the public advanced from 6,652 grains to 7,420 grains.

Local Advisory Committees and the Standing Committee.

327. The advice of Local Bodies was helpful in minor excise matters. The Standing Committee of the Punjab Legislative Council has made a successful start by discussing a number of questions of general interest. The Committee met twice during the year—first in September 1919 and again in March 1920. In accordance with one of the suggestions adopted by the Committee, the Excise Superintendent of the Province has been directed frequently to test bottles of country liquor to prevent the use of deleterious materials by distillers. Another suggestion adopted by the Committee related to the closing of liquor shops in Ludhiana on the occasion of fairs. The non-official members were in sympathy with a proposal put forward by a member that the experiment of total prohibi-

tion in a particular area in which the facilities for illicit distillation were few should be begun particularly in pilgrim towns like Jawala Mukhi and Kangra, where religious feeling would help prohibition. The large increase in consumption was again discussed generally in the March meeting, and one of the recommendations was that every measure possible should be taken to encourage temperance in the Army which, to some extent, sets a fashion to rural neighbourhoods.

Prosecutions.

328. A case of some general interest is the prosecution of an unlicensed vendor for selling *anti*-opium pills which contained a percentage of morphia. A Judge of the High Court held that morphia is prepared from opium, but there is a clear distinction between a preparation from opium and a preparation of opium and that it would be more accurate to describe opium as a preparation of morphia than morphia as a preparation of opium. The accused was consequently acquitted.

40.—Salt Revenue.

Cis-Indus and Kalabagh Mines.

Khewra Mine. Excavation of salt.

329. The year's output from the Khewra Mine of 3,827,658 maunds fell short of the previous year's record. The contributory causes of the deficiency were collapse of an important tunnel and consequent blockage for 3 months of works dependent on it: the breakdown of one of the two haulage locomotives: an outbreak of small-pox: and, lastly, the interruption caused by the April disturbances of 1919 and the railway strike of 1920. The outturn per 100 cubic feet and the cost per 100 maunds were respectively 135·86 maunds and Rs 8-3-8·48 as compared with 139·15 maunds and Rs. 5-13-0·54 in 1918-19. The fall in maundage was due to a greater number of minor marl seams being encountered while the enhanced cost of production is accounted for by the increase which had to be sanctioned in the rates for excavation.

Development of the Warcha Mine.

330. The development of the Warcha Mine is progressing steadily. There are now six chambers in the new or eastern section of the mine while the new workings are in a position to give a daily outturn of some 3,000 maunds.

The smaller mines.

331. No special expenditure was incurred during the year in respect of the small mine at Nurpur. The Kalabagh operations are turning out satisfactorily.

Sale price of salt.

332. The Commissioner, Northern India Salt Revenue, has furnished some interesting statistics which show that on the salt transactions of the Salt Range Division there has in 26 years been a net loss of a little over Rs. 1 lakh. In that period over 3 million tons have been sold. The price of salt was increased half an anna to 2 annas per maund this year, owing to the increased cost of excavation. The net profit on the twelve months was Rs. ·84 lakh.

Investigation of the potash salt deposits at Nurpur.

333. No further exploration for potash salt deposits was made at Nurpur, but excavation was continued and 2,250 maunds of potash salt were despatched to Calcutta firms during the year.

Accidents.

334. The average number of persons employed daily above and below ground in the Khewra mine during the calendar year rose from 807 to 869, of whom 487 were men, 326 women, and 56 children under twelve years of age. There were 65 minor and 7 serious accidents in this mine, 6 minor accidents at Warcha, and no accidents at Kalabagh.

Jail prisoners.

335. The employment of jail prisoners at the Khewra depôt continued to prove a success. The conduct of the prisoners was throughout good, and they have never given trouble. The average number employed daily on filling, sewing, stacking, weighing and loading was 108.

Mandi Quarries.

336. Sales of Mandi salt amounted to 129,672 maunds and were 2,250 maunds below the figures of the previous year, for, although Drang still further increased its output by 7,149 maunds, the Guman quarries went from bad to worse and showed a further decrease of 9,399 maunds. The report of the officer of the Geological Survey Department, deputed to survey the quarries, has not yet been received.

The price and duty of this salt remained the same, and there was no change in the area of consumption.

SULTANPUR SALT WORKS.

337. The demand for the impure Sultanpur product in which an analysis made during the year found only 80·7 per cent. of sodium chloride, is felt only when better salt is not freely available. The outturn from 34 licensed works was 45,819 maunds, and the clearances only 23,922 maunds, the average sale price falling from Re. 1-0-8 to Re. 0-10-0 a maund.

SALTPETRE.

338. Rs. 4,100 were realized on account of fees of 60 refinery and 1,218 crude saltpetre licenses issued in the Punjab. Of the 60 refineries licensed only 57 worked during the year.

The year's outturn of refined saltpetre in the Punjab was 1,49,174 maunds, and the quantity of purified salt educed in refineries amounted to 121 maunds and of *sitta* (impure salt) to 1,77,333 maunds, while 165 maunds of salt and 2,231 maunds of *sitta* were excised during the year and 181,390 maunds of *sitta* destroyed.

41.—Stamp Revenue.

Income.

339. Receipts under the Court-fees and Stamp Acts amounted to Rs. 77·93 lakhs as compared with Rs. 61·42 lakhs in 1918-19.

Judicial Stamps.

340. Of the total increase judicial stamps contributed Rs. 5·81 lakhs. This expansion was generally ascribed to enhanced litigation owing to good harvests and consequent prosperity. The money-lending classes, too, were busy realising the debts contracted during the war owing to the enormous rise in prices. The sale of stamps of high value in connection with applications for the grant of probate and letters of administration as well as for civil suits involving immovable property (the value of which has been appreciated so materially throughout the Province) was also a contributing factor. Special causes operated in Kangra where a number of boundary disputes were instituted at the close of settlement operations, and in Montgomery where the rapid development of the Lower Bari Doab Colony was followed by increased litigation.

Non-judicial Stamps.

341. The receipts from non-judicial stamps rose from Rs. 23·02 lakhs to Rs. 33·72 lakhs, the largest increase being under the head "Impressed Stamps." This was due to various causes; but by far the most important were the abnormal

rise in the value of landed property, both urban and rural, and the increased amount of speculation in both. The substitution of formal deeds for irregular account book entries under the persistent vigilance of courts was another notable cause. In Mianwali the increase is ascribed to the enhanced value of immovable property cis-Indus owing to the migration of large numbers of people from beyond the river and their settlement in the less-disturbed portions of the district. The income from *Hundi* stamps amounted to Rs. 71,000 against Rs. 60,000. But in certain districts Western methods of transacting business have ousted the *Hundi* from popular favour. For example, supply bills on other Treasuries and the Banks of Bengal and Bombay are freely issued from the Rawalpindi Treasury.

Miscellaneous.

342. At the suggestion of the Superintendent of Stamps, Karachi, all deeds of mortgage, conveyances, etc., requiring to be stamped with non-judicial impressed stamps of high values were stamped with impressed labels because of the diminution in the stock of non-judical impressed sheets of high values at Central Depôts, and the result of this action is to be found in a marked increase in the income from impressed labels. The increases under foreign bill and share transfer stamps were mainly due to large purchases by a Lahore bank. Lastly, the very considerable increase of Rs. 1·35 lakhs in the income from stamps for legal practitioners' licenses is to be ascribed to the constitution of the High Court resulting in the admission of the former Pleaders of the Chief Court as Vakils of the new Court. In other respects there is little to notice in the working of the Stamp Department, except that while greater alertness on the part of presiding officers of courts was reported in some districts of the Province no less than ten districts returned no cases under sections 32, 37, 40, and 41 of the Stamp Act.

Expenditure.

343. The expenditure rose from Rs. 2·37 lakhs in 1918-19 to Rs. 3·15 lakhs.

42.—Income-tax.

Collections.

344. On the 1st of April 1919 the total amount outstanding on account of arrears of previous years was Rs. 15·96 lakhs. The demand for 1919-20 was at first placed at Rs. 47·34 lakhs, but was

subsequently reduced to Rs. 44·85 lakhs of which 26·19 lakhs were collected to which must be added recovery of Rs. 14·30 lakhs on account of arrears. The total of these collections (double that of 1916-17) showed a rise of 16·3 per cent. as compared with collections in the previous year.

Sources of Income.

345. Incomes below Rs. 2,000 were exempted from income-tax from the 1st of April 1919. This resulted in a sacrifice of Rs. 7·80 lakhs plus an approximate increase of 25 per cent. by which the tax might have been expected to expand if the exemption had not come into force. The number of assessees benefiting by the exemption is estimated at Rs. 27,000.

General.

346. There were altogether six special agencies at work, *viz.*, one in each of the five divisions with an extra officer in the Lahore Division for Lahore and Amritsar cities. No work was done by any Special income-tax officer in Gurgaon, Simla, Kangra, Montgomery, Lyallpur, Jhang, Muzaffargarh, and Dera Ghazi Khan. The assessments made by the six special agencies secured an increase of Rs. 5·89 lakhs. The only decreases were in the Lahore and Amritsar cities, Rs. 18,328 and Rs. 96,923, respectively.

Working of the Act.

347. The new Act was, on the whole, understood somewhat better than previously, but the working adjustments and the taxation of incomes from house property and professional sources require greater attention.

The chief reasons why the prescribed returns are not filled in by assessees are summed up as follows :—

(*a*) The majority of the assessees, especially rural assessees, do not keep regular annual accounts and are really unable to fix the amount of the profit or loss in the preceding year on which the current year's assessment is based.

(*b*) There is a general impression that slight mistakes in the returns may render the assessee liable to a criminal prosecution. This impression acts as a deterrent, and it is considered safer to submit no return.

(c) In a large number of cases assessees do not disclose their income to avoid paying more. There undoubtedly exists a feeling that to declare an income of a certain amount is merely to invite a heavier assessment. Confidence in the assessing agency will grow in time.

(d) Many assessees have a genuine reluctance to divulging their investments and borrowings for fear of losing credit, and the assurance that the information would be kept strictly confidential has not so far succeeded in dispelling this apprehension.

43—Forest Revenue.

General Financial Results.

348. The revenue of the Forest year ending June 30th, 1920, was Rs. 40·75 lakhs and the expenditure Rs. 25·52 lakhs, yielding a cash surplus of Rs. 15·23 lakhs. The revenue and expenditure were classified as follows :—

Revenue.	Lakhs.	*Expenditure.*	Lakhs.
I.—Timber and other produce removed from the forests by Government Agency ...	24·81	A.—Extension, constitution, improvement, and exploitation of the forest property ...	18·67
II.—Timber and other produce removed from the forests by consumers or purchasers ...	7·66	B.—Administrative, executive, and protective charges ...	6·85
III.—Drift and waif wood and confiscated forest produce ...	1·01		25·52
IV.—Revenue from forests not managed by Government ...	0·03	Cash surplus ...	15·23
V.—Miscellaneous ...	7·24		
TOTAL ...	40·75		40·75

The revenue rose to Rs. 16·14 lakhs and the expenditure Rs. 6·60 lakhs. The increase in revenue was chiefly due to an increased outturn of timber and firewood sold at higher prices, larger sales of rosin and turpentine, and better prices realized for temporary cultivation leases.

Profits.

349. The true results of the year's working show a surplus of Rs. 23·33 lakhs, *viz.*—

	Lakhs.
Cash surplus	15·23
Add—	
Increase in value of stock	6·31
Capital expenditure, less interest	2·38
	23·92
Deduct—	
Decrease of outstanding revenue	0·59
TOTAL ...	23·33

44.—Provincial Revenue and Expenditure.

Balance Sheet.

350. The provincial share of the revenue raised and expenditure incurred in the Punjab with the opening and closing balances in each year are shown in the table below :—

(Figures in thousands of rupees.)

—	1918-19.	1919-20.	Difference between 1918-19 and 1919-20.
Opening balance	1,94,52	2,30,95	+36,43
Revenue	5,73,76	6,60,88	+87,12
Expenditure	5,37,33	6,31,90	+94,57
Closing balance	2,30,95	2,59,93	+28,98

The provincial balance includes 23 lakhs, being the unspent accumulation of the Imperial assignments for special purposes. The expenditure has again increased at a more rapid rate than the revenue, but it is a matter for congratulation that even without any recourse to increased

taxation there is an increase in the balance of 29 lakhs. The provincial finances are, however, at present in a somewhat fluid condition owing to the very large expenditure which has still to be faced in the direction of increased pay for establishments and to the impending financial settlement which will run with effect from 1st April 1921. Whether as a result of these and other factors an increase in taxation will be necessary remains to be seen, but there are many remaining sources of income which can be tapped without undue hardship to the tax-payers concerned.

Variations in revenue from previous year.

351. The important variations between the years 1918-19 and 1919-20 under the different heads of revenue are as follows :—

	(*Figures in thousands of rupees.*)
I—Land Revenue	+14·22
IV—Stamps	+ 8·26
V—Excise	+ 12·11
VIII—Income-tax	+ 3·68
IX—Forest	+ 16·92
X—Registration	+ 1·57
XVI-A—Law and Justice—Courts of Law	+ 1·64
XVI-B—Law and Justice—Jails	− 1·64
XVII—Police	+ 1·44
XXV—Miscellaneous ...	− 1·49
XXIX—Major Works—Public ...	+ 23·02
Indirect Receipts ...	− 5·52
Transfers ...	+ 12·35

The figures under I—Land Revenue contain large receipts which should be shown under XXIX—Indirect Receipts, but the separation is impracticable until the question of their exact apportionment is settled. The net increase

under these two heads is, however, extremely satisfactory in view of the prevailing agricultural conditions and is mainly due to the more extensive area under irrigation, though the large sales of Government estates and waste land in the canal colonies were also a contributing cause. Increased speculation, chiefly in respect of landed property, and the general development of business after the stagnation due to the war, are the causes of the large improvement under IV—Stamps. The widespread prosperity of the Province is reflected in the expansion in the Excise income, and the consumption of spirits and liquors exceeded the record figures of the previous year. The reconstruction of income-tax procedure by Act VII of 1918, the introduction of the assessing agencies, and the collection of large arrears (against which, however, have to be set off the exemption of incomes under Rs. 2,000 and the failure to collect the total year's demand) account for the increase under VIII—Income-tax. To better prices, recoveries of outstandings, and greater demand for firewood, timber, resin, and turpentine can be ascribed the improvement under IX—Forest. The number and value of deeds registered on the termination of the war and the poor *rabi* harvest are the causes of the increase under X—Registration. Fees and fines levied by courts account for the larger receipts under XVI-A—Law and Justice. With the termination of the war the indents of the Military, both for jail labour and manufactures, practically ceased, thus adversely affecting the receipts under XVI-B—Jails. The increase under XVII—Police is due almost entirely to recoveries on account of the punitive police who were stationed in various places as the outcome of the disturbances. The latter cause also affected the receipts under XXV—Miscellaneous, under which head the payments on account of damage to Government property were credited. The very large increase in the Direct Receipts under XXIX—Irrigation—Major Works is due (as already stated) to an exceptional demand in both harvests for water from the perennial canals. The decrease in the Indirect Receipts, as explained above, is nominal only. Large non-recurring grants towards the cost of the Chenab Bridge, agricultural education, the Publicity Committee, and the establishment of an institute at Mughalpura for training of mechanical engineers are the main causes of the increase in the Transfers.

352. On the expenditure side the chief variations between the figures of 1918-19 and 1919-20 are shown below :—

Variations in expenditure from previous year.

	(*Figures in thousands of rupees.*)
1—Refunds	1,00
3—Land Revenue ...	8,23
11—Forest	6,20
18—General Administration ...	2,15
19-A—Law and Justice—Courts of Law	7,10
20—Police	14,30
22—Education	3,70
22-A—Medical	2,36
24-B—Sanitation	1,88
26-A—Agriculture ...	4,09
30—Stationery and Printing ...	1,51
42—Major Works—Public ...	7,16
45—Civil Works—Civil ...	4,29
45—Civil Works—Public ...	27,86

The following causes are responsible for increases under practically every head :—

1. The doubling of the war allowance with effect from April 1st, 1919, for six months and the temporary allowance which was sanctioned by the Government of India with effect from October 1st, 1919, for all Government servants on pay of Rs. 75 and under.

2. The high prices of food-grains and the consequent high rates at which grain compensation allowance was drawn.

3. The revision of pay of some of the Services.

4. Increased contingent charges necessitated by the disturbance and the enhancement of postal rates from the 1st January 1919.

The apportionment of the charges due to the recent revision of the pay and the strength of the district establishment has now been made on the lines recommended by the District Establishment Committee and is the cause of variation under several heads, especially under those for Land Revenue, Excise, and Law and Justice.

In addition to these general causes some variations in certain expenditure heads are due to the special causes mentioned below.

Special causes for variations.

353. The increase under 1—Refunds and Drawbacks is mainly owing to larger income-tax refunds. The increased activities of the Forest Department, comprising extensive departmental timber exploitation works in Bashahr, Kulu, and Rawalpindi East Divisions, the extraction of a larger quantity of resin in the Rawalpindi Division, and the extension of the Jallo Factory account for the additional expenditure shown under 11—Forests. The pay of officers on special duty in connection with disturbances contribute to the increase under 18—General Administration and 19-A—Law and Justice—Courts of Law. A contributing cause of the increase under 20—Police is the revised system of apportionment of the cost of the Railway Police between Government and the Railway companies. The general extension in the activities of the Educational, Medical, and Agricultural Departments accounts for the expansion under these heads. Higher prices are the cause of the larger expenditure under 30—Stationery and Printing. In addition to the general causes, the increase under 42—Irrigation—Major Works is due to expensive repairs to canal banks necessitated by the monsoon floods and to a *pro rata* distribution of charges dropped under head 49—Capital owing to a decrease in expenditure under that head. Earlier sanction of estimates, more normal conditions, the return of many officers to civil employment, and the absence of any serious outbreak of influenza or other epidemics which in the previous year seriously affected the supply of labour enabled the Budget estimate under 45—Civil Works to be worked up to, and there were thus no lapses, as in previous years, to be set off against the increased expenditure due to an all-round rise in the price of material and heavy expenditure on various large works.

45.—Local Funds.

Income.

354. For the first time in the history of the Province the gross income of District Boards exceeded a crore of rupees, the figures being over 107⅔ lakhs which is Rs. 12¾ lakhs more than in the previous year. The local rate yielded Rs. 2 lakhs of this increase, the balance being, as usual, mainly the result of Government grants.

Expenditure.

355. Variations in income and expenditure under the more important heads have already been discussed in Section 24.

46.—Municipal Funds.

Income.

356. The gross income of municipalities during the year 1919-20 amounted to Rs. 106·29 lakhs. The income from taxation was Rs. 59·18 lakhs, out of which Rs. 53·14 lakhs was contributed by octroi; while Government grants aggregated nearly 10 lakhs. The incidence of taxation per head of population was Rs. 3-10-3.

Expenditure.

357. The total expenditure for the year was Rs. 97·07 lakhs, of which Public Instruction and Roads accounted for Rs. 8 and 7 lakhs, respectively. The cost of collection of taxes was Rs. 5½ lakhs. The closing balances were somewhat higher than last year. But the ambitious schemes of water-supply and drainage which are under consideration by several committees can scarcely be financed without very substantial aid from Government; and even with this assistance increased taxation will be required.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICE.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below:—

PROVINCIAL REPORTS.

Census—Report on the Census of the Punjab, 1911, by Rai Bahadur Pandit Hari Kishan Kaul, C.I.E.

Births and Deaths—Sanitation. Report on the Sanitary Administration of the Punjab and Proceedings of Sanitary Board for the year 1919.

Emigration—Census Report as above.

Medical Relief— Triennial Report of the working of the Charitable Dispensaries in the Punjab for the years 1917—19.
Report on the working of the Punjab Lunatic Asylum for the year 1919.

Vaccination—Report on Vaccination in the Punjab for the year 1919-20.

PUBILCATION OF THE GOVERNMENT OF INDIA.

Statistical Abstract for British India, Volume III—Public Health.

47.—Details of Census.

[*Vide* pages **157**—67 of the Administration Report for the year 1911-12.]

48.—Births and Deaths.

358. The roughly estimated population for the year 1919, prepared by the method described in the Report for 1918, works out to 20,435,917 (11,235,862 males and 9,200,055 females) as against the census population of 19,337,146 (10,608,101 and 8,729,045). Calculated on this estimated population the birth rate is 38·3, *i e.,* 2·0 *per mille* less than the rate calculated on the census figures and similarly the death rate 26·8 is less by 1·5. In individual districts the rates calculated on the census figures are in excess in all districts except Gurgaon, Simla, and Dera Ghazi Khan.

General.

359. The year 1919 was exceptionally healthy. Omitting 1912 from consideration, the total death rate from all causes was lower than it has been since 1900. Cholera, small-pox, and "injuries" were the only causes of mortality showing an increase; while the reduction in the death rate from fevers on last year's figures is, no doubt, attributable to the absence of both malaria and influenza in an epidemic form.

A healthy year.

Births.

360. The birth rate, although higher than that recorded last year, is not so satisfactory.

The total number of births registered during 1919 was 778,846, of which 413,018 were males and 365,828 females, the respective rates being 40·3, 21·4, and 18·9. The total rate shows an increase of 0·7 compared with last year and a decrease of 3·8 compared with the average for the previous five years. A comparison by districts with the quinquennial average discloses the fact that the rate in 1919 was less in all the districts of the five divisions excepting Mianwali in the Rawalpindi Division and Montgomery, Lyallpur, Jhang, and Multan in the Multan Division where it was in excess. The rate for Simla was equal to the quinquennial average. Compared with the previous year the rate was in defect in the whole of the Ambala and Jullundur Divisions, excepting the Gurgaon district; and in excess in the Lahore, Rawalpindi and Multan Divisions excepting Gurdaspur, Sialkot, and Gujrat districts. The birth rate for 1919 is simply the continuation of the history of the influenza epidemic of the previous year. The south-eastern and southern districts which suffered most from that epidemic show a decrease in the rate; and such decrease in a district is, generally, a fair indication of the severity of the epidemic.

The birth rate in the 38 municipal towns amounted to 45·6 *per mille*, which is higher than last year and the average for the previous five years. The highest birth rate was recorded in Montgomery where it was 50·7, and the lowest in Simla where it amounted to 21·1. Of the 28 districts in the Province 12 had a birth rate higher than the provincial rate of 40·3.

Deaths.

361. The total number of deaths during 1919 was 548,070, of which 291,266 were males and 256,804 females, the resulting rates being 28·3, 27·5, and 29·4. These are not much more than one-third the rates of the previous year and are well below the averages for the previous quinquennium. Of this death rate 18·9 or more than half were due to "fevers," 4·9 to "all other causes," and 2·0, 0 8 and 0·4 to respiratory diseases, small-pox and injuries, respectively. The marked decrease in the Provincial death rate is due to the diminished incidence of plague and fevers, which show rates of 0·6 and 18·9, respectively, as compared with 4·9 and 66·6 in the preceding year.

With the exception of Simla the death rate by districts was considerably lower than that of last year and the average for the previous five years. The highest death rate (39·0) was recorded in Gurgaon and the lowest (21·5) in Shahpur.

Monthly variations in health.

362. August, with a death rate of 1·72, was as usual the healthiest month of the year. The quarterly death rates were :—January—March 6·70, April—June 6·74, July—September 6·22, and October—December 8·67. The rates were, as usual, higher in the last (and malarial) quarter of the year owing to fevers ; unhealthiness began in September with a death rate of 2·44, which rose to 2·90 in November.

Incidence of mortality.

363. As usual, infants under one year of age had the highest mortality, amounting to 184·15 for males and 170·10 for females, figures for the previous year being 248·83 and 235·91, respectively. Calculated on the number of births during the year the rates work out at 189·33 and 188·04 for males and females, respectively, as against 261·19 and 264·36 in the year previous. Next to infants old people of 60 and upwards suffered most, the rates for that age period being 66·49 for males and 64·94 for females. Children between one and five came next with rates of 49·12 and 50·30. The group between 50 and 60 disclosed rates of 28·28 and 27·26 ; in other groups the rate ranged between 8·87 in the 10—15 years group and 18·55 in the 40—50 years group. The mortality among females was higher than that amongst males in all the age periods except those under one year and between 40 and 60 and upwards.

The total mortality rate for infants under one year—177·29—is a fair index of the position of the Province in the scale of material civilisation, the corresponding English rate of 71 for the last quarter of 1919 constituting an instructive standard of comparison.

Classification of deaths by communities.

364. The total death rate for the whole Province under "Other classes" was 17·02 against 107·01 in the year preceding. The rates were for Muhammadans 28·32, Hindus 28·33, Indian Christians 31·32 as against 81·32, 80·09, 100·80 in the year preceding.

Urban death rates.

365. The urban rate, which was 33·95, exceeded the rural rate of 27·78 under all the heads of mortality except fever, for which the recorded excess against the rural circles was 3·72. This excess is due to mis-classification, deaths from plague being mostly returned under "fever." The rates recorded in the three largest towns—Amritsar (36·2), Multan (35·67), and Lahore (34·03)—are considerably less than those of the previous year and the average for the preceding five years.

Cholera.

366. Cholera was more prevalent than in the previous year, causing 8,561 deaths, as compared with 257. Deaths from this disease were registered in all districts of the Province except Simla, the mortality being greatest in the Attock District, *viz.*, 2,022; Lyallpur was next with 1,380. The disease made its appearance in April, in which month a mortality of 35 was recorded; this increased in May to 273 and in June to 1,436. The climax was reached in July with 3,762 deaths. The source of infection in the case of 373 deaths proved to be Hardwar, and in most places the outbreak of the disease was traced (as usual) to importation of infection from the centres directly infected from Hardwar.

Small-pox.

367. The small-pox epidemic, which had been widespread at the end of the previous year, continued to increase in 1919. It claimed 15,365 victims during the year, or 0·79 *per mille*, against the quinquennial average of 0·12. The mortality was higher than in the last five years, and no district was free from the disease. Of the deaths registered under this head 3,848 were under one year of age and 7,862 from one to ten years of age. The incidence of nearly two-thirds of the deaths among children under ten years of age points to neglect of infantile vaccination.

The mortality rate was as high as 2·64 *per mille* in Montgomery District, and as low as 0·03 in Muzaffargarh and Dera Ghazi Khan. The death rate in urban areas was 1·33 as compared with 0·74 in rural circles, and the average rate for towns in which the Compulsory Vaccination Act is in force was 1·14.

Plague.

368. The total number of plague cases and deaths in the Punjab during 1919 was 16,507 and 12,683, respectively, of which 1,891 cases and 1,594 deaths occurred in Native States. The most severely-

infected districts were Rohtak (3,228 deaths), Lahore (1,611 deaths), Ferozepore (1,152 deaths), and Montgomery (894 deaths). The Patiala State reported 1,083 deaths and Jind State 325 deaths. The bubonic kind of the disease prevailed, though small localised outbreaks of the pneumonic and septicæmic types occurred in eight districts. The case mortality was 71·2 per cent., which is the lowest figure reached during the past ten years, excepting 1917. Systematic rat destruction was continued as an anti-plague measure.

Fevers.

369. The total number of deaths recorded from fevers amounted to 3,65,045 (equivalent to a death rate of 18·88 *per mille* of population) as against an average number of "fever" deaths of 350,000 during the past fifty years (omitting 1918 on account of influenza). The districts exhibiting the highest "fever" death rate were Gurgaon 25·25 *per mille* and Karnal 24·94. The fever death rate in rural circles was 19·22 *per mille*, being higher by 3·72 *per mille* than the corresponding figure in urban areas. (The reason for this difference is given in paragraph 365 above.) It was slightly higher amongst females than amongst males, being 19·77 *per mille* in the former as compared with 18·14 *per mille* in the latter. The monthly incidence in the "fever" deaths exhibited no unusual feature. The months of October and November exhibited the largest number of "fever" deaths, whilst a smaller rise took place in the months of May and June.

Spleen census.

370. The spleen census of school children under ten years of age was carried out as usual in the months of June and November with the result that of 43,919 children examined in 1919 the spleen rate was found to be 10·1 per cent. as compared with 12·1 per cent. in November 1919, when 45,905 children were examined.

Influenza.

371. There being a probability of a recrudescence of influenza in the spring arrangements were made to organise measures against its spread, but fortunately, except for a few cases of a mild type, the Province remained free from the disease.

Other causes.

372. Deaths from dysentery and diarrhœa were 8,639 as against 10,358 in the previous year, and those from respiratory diseases amounted to 37,813, which is a decline from the figures returned in the previous year and on the quinquennial average. The total

number of deaths registered under "all other causes" was 94,683 at a rate of 4·90, which is the lowest on record since 1871.

49.—Emigration and Immigration.

373. There is nothing of special interest to report under this head. Certain modifications which were made in the General Passport Rules applied to the Punjab as to other Provinces.

50.—Medical Relief.

Dispensaries.

374. With the closure of six and the opening of 19 new dispensaries the total working at the close of the year was 504. A sum of Rs. 1·25 lakhs was allotted to local bodies and societies for the provision of new institutions.

Patients.

375. The number of in- and out-patients treated, thanks to the healthiness of the year, fell by 127,00, to 4,830,911. In-patients totalled 93,141 against 88,386 in the previous year. The number of patients of different classes treated in the public, local fund and private aided institutions in 1919 was :—

	(In thousands.)
Europeans and Anglo-Indians ...	7
Hindus	2,126
Muhammadans	2,419
Others	277

Statistics of diseases.

376. The principal diseases for which patients were treated in 1919 are shown below :—

	(Patients in hundreds).
Cholera	1,6
Dysentery	53,4
Enteric fever	2,7
Malaria	605,8
Rheumatic fever and rheumatism ...	75,9
Small-pox	9
Other tubercular diseases	4,9
Diseases of the eye	1,077,0
Diseases of the ear	382,0
Diseases of the nose	28,8
Dyspepsia	175,2
Diarrhœa	51,2
All other diseases of the digestive system	517,1
Ulcers	435,4
Other diseases of the skin ...	420,4
Injuries, general and local ...	212,4

Among the 113 patients admitted into hospital suffering

from cholera (which was considerably more prevalent than in 1918) the mortality was 56 per cent. A Rogers'-cholera apparatus has been supplied to every Civil Hospital at head-quarters and in the *mufassil* of which an Assistant Surgeon is in charge, as well as to each Police Hospital in the Province.

Small-pox, also, was severely epidemic throughout the year.

Departmental institutions.

377. The cases treated in Police, Canal, Railway, and other State special hospitals and dispensaries numbered 4,000 less than, in the preceding year.

Non-aided dispensaries.

378. At the ten private non-aided dispensaries which submitted their returns the number of patients treated fell off by more than 1,000, but operations performed rose by over 600.

Surgery.

379. There was an advance of nearly 19,000 in the total number of surgical operations performed, over 19,000 of which were for cataract. The district of Ferozepore easily out-distanced all rivals, returning over 10,000 more selected operations than the next highest district (Karnal).

Income and expenditure.

380. The total income of dispensaries of classes I, III, and IV was Rs. 20·5 lakhs against Rs. 17·3 lakhs in 1918. Government contributions amounted to Rs. 2·86 lakhs, or nearly 14 per cent.; those of local Funds to Rs. 7 lakhs and of Municipal Committees to Rs. 5·94 lakhs. The expenditure amounted to Rs. 18·4 lakhs.

Mayo Hospital.

381. The extension of the Mayo Hospital, Lahore, under the King Edward Memorial Scheme, having reached completion in 1918, the new wards ando perating theatres were taken into use during 1919.

Female Medical Aid and Education.

382. The paucity of qualified medical women available has continued to be a serious obstacle to the extension of efficient medical aid to women by their own sex. A Government service for women Sub-Assistant Surgeons, which has recently been created, may possibly induce a larger number of young women to try for the M. P. L. diploma than

hitherto. Classes for the training of nurse *dais* and indigenous *dais* have been carried on at Hissar, Bhiwani, Ambala, Ferozepore, Ludhiana, Lahore, Jandiala and Asrapur, wholly or partly assisted by the Victoria Memorial Scholarship Fund.

Arrangements have been made for the establishment, in the Rawalpindi District, of an itinerating dispensary for women in charge of a European Lady Doctor. An endowment for this has been provided from the surplus of charitable funds collected in the district during the war.

War Hospitals.

383. The accommodation reserved for the overseas casualties in the Civil Hospitals at Karnal, Jullundur, Amritsar, Gurdaspur, and Lyallpur and at the Mayo Hospital, Lahore, remained at the disposal of the military authorities throughout the year and was utilised for the casualties from the expeditionary forces operating on the Frontier. The whole of it has been surrendered to the civil authorities since the close of the year.

Punjab Lunatic Asylum.

384. The daily average strength of the lunatics of the Asylum was 875 against a provision for 838. The maximum number of lunatics confined on any one night was 898, and the number under treatment at the close of the year was 857. The number discharged was 268; died 92. The health of the inmates was generally satisfactory, although influenza again made its appearance at the end of the year in a mild epidemic form, this time in the female side of the institution.

A project is under consideration to ameliorate the overcrowding in the male section by the construction of a separate enclosure for the criminal insanes. The acquisition of land for the extension of the Asylum with a view to prevent the spread of tubercle has been notified in the *Gazette*, and building operations will soon be commenced.

51.—Sanitation.

Village sanitation.

385. Few attempts were made to improve village sanitation, and these with but little zest. A separate Sanitary Inspector is employed by the District Board, Rohtak, solely to look after the sanitation of rural areas. In the Gurdaspur District fifteen villages

maintain conservancy establishment at their own expense. Out of a total income of Rs. 82·21 lakhs the municipalities of the Province expended a sum of Rs. 22·32 lakhs on sanitation and vaccination; but out of a total income of Rs. 94·90 lakhs the District Boards disbursed only Rs. 1·36 lakhs.

Sanitary Board.

386. The Sanitary Board met seven times during the year,—three times each in Lahore and Simla and once in Multan. The balance of Rs. 3·73 lakhs, left over from the grant made during 1918-19, was fully utilized, and out of the fresh grant of Rs. 4 lakhs, placed at the disposal of the Board for allotment during 1919-20, grants-in-aid aggregating Rs. 57,000 had been made up to 31st December 1919.

Drainage Board.

387. The Board is actively developing the general sanitation of urban areas, and now makes a practice of holding sessions in towns to discuss important questions with local representatives. This procedure assists the removal of misapprehensions and produces excellent educative effects, bringing home to Municipal Committees the fact that the Board is no mere academic institution. In regard to technical matters the Board is proceeding on certain well-defined lines of policy. The introduction of the water carriage system—the goal of all sanitarians—is being carefully and skilfully regulated under the Sanitary Engineer's guidance, and a start on really modern lines has been arranged for in a selected portion of Lahore. Water-supply problems have received much attention, and the Board has financed or is financing most valuable experiments. An outstanding example of the value of this policy is the solution of the extraordinarily difficult problem of the Ambala water-supply by the Sanitary Engineer's ingenious device of laying horizontal strainers in the bed of the Tangri River—a work for which all the funds have been supplied by the Sanitary Board. Arrangements for the detailed survey of the seven largest towns have been made, and the work will be undertaken as soon as the Survey Department can supply the staff. The Board has further adopted the policy of "conditioning" grants-in-aid in order to secure the best results and awake in Municipal Committees a full sense of their responsibilities.

52.—Vaccination.

Expenditure.

388. The cost of the department (including the Vaccine Institute) during 1919-20 was Rs. 1·63 lakhs, being an increase of Rs. 21,000 over last year's figures.

Operations.

389. The average cost per successful operation was Re. 0-3-5 higher than in previous years. The number of operations performed by all establishments during the year 1919-20 amounted to 9,28,822, showing a decrease of 65,771, compared with the previous year. There was an increase in primary vaccination and a decrease in re-vaccinations. The former was due to the employment of extra vaccinators and to the special efforts made to prevent the spread of small-pox. In explanation of the decrease in re-vaccination it is generally asserted that last year almost all school children were vaccinated; but the deficit is in no small measure due to lack of sustained effort. The Medical Department is notoriously over-worked at present, and the systematic appointment of District Health Officers responsible for vaccination operations should relieve the situation.

The percentage of success of the operations performed by all establishments combined was 97·95 in primary vaccinations and 76·18 in re-vaccinations.

Urban vaccination.

390. The number of infants available for vaccination in municipal towns was estimated at 62,653, of which 48,090 or 77 per cent. were successfully vaccinated. In the towns in which the Vaccination Act is in force 80 per cent. of the total number of children available were successfully vaccinated during the year as against 100 in 1918-19; while the percentage of successful vaccination to the total number of available children in towns in which vaccination is not compulsory works out to 63 as compared with 68 in 1918-19.

Punjab Vaccine Institute.

391. The total number of tubes issued by the Punjab Vaccine Institute was 49,507, the reduction in the quantity as compared with 1918-19 being almost entirely due to the lessened demand on the part of the Overseas Forces. Results were received for 27,519 tubes, showing that 708,835 primary vaccinations with an insertion success rate of 97·28 per cent.

and 263,908 re-vaccinations with an insertion success rate of 74·23 per cent. were performed.

In the last Report the necessity for extending the Murree depôt was referred to, and comprehensive proposals to this end have received the sanction of Government. The neighbouring property of "Green Villa" is in process of being acquired, and by next season construction work should be well forward.

Training Classes.

392. Eight classes for training vaccinators in the technique of vaccination and elementary hygiene, each lasting about a fortnight, were held in November to March to which vaccinators from seven districts were admitted.

CHAPTER VII.

INSTRUCTION.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Education.—(1) Report on the Progress of Education for the year 1919-20.

(2) Report on the operations of the Department of Agriculture, Punjab, for the year ending 30th June 1920.

(3) Annual Report on the Punjab Veterinary College and the Civil Veterinary Department, Punjab, for the year 1919-20.

Arts and Sciences.—Report on the working of the Lahore Museum for the year 1919-20.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Education, Literature, and Press.—Statistics of British India, Volume V, Education.

Statistical Abstracts for British India, Volume IV, Administrative, Judicial, and Local Self-Government.

53.—General System of Public Instruction.

[*Vide* pages 173—184 of the Administration Report for 1911-12.]

54.—Education.

393. The number of public institutions has increased by 415 to 7,182 and the number of scholars by 32,614 to 464,272 (including 60,672 girls). Private institutions have expanded to 2,479 with an attendance of 53,717 scholars. There has been a marked rise in the number of agriculturists, especially in the Primary and Lower Middle grades.

General Summary.

The total expenditure from Provincial and Imperial revenues has increased from Rs. 56·70 lakhs to Rs. 64·13 lakhs : that from district and municipal funds

has also risen from Rs. 13·51 lakhs to Rs. 17·28 lakhs and from Rs. 5·40 lakhs to Rs. 6·94 lakhs, respectively. The fee income shows an increase from Rs. 29·05 lakhs to Rs. 31·19 lakhs. Grants of Rs. 19·63 lakhs and Rs. 2·30 lakhs, respectively, were made by Government to the boards and committees.

Salient features in annual progress.

394. The chief features of the period under review are :—

(a) *Primary education*—

(i) The Multan Municipality has decided to introduce the Punjab Primary Education Act in 1921.

(ii) Classes in all primary schools have been reduced to four, a reduction which affects statistics.

(b) *Secondary education*—

(i) Manual Training Centres have been established in various cities ;

(ii) The scheme for agricultural education has made a satisfactory start ;

(iii) To meet the intense demand for Anglo-Vernacular Education, substantial sums have been collected in various places for the teaching of English as an optional subject in Vernacular Middle Schools ;

(iv) The new Matriculation and School-leaving Certificate examination has been introduced ;

(v) A further revision of Subordinate and Provincial Educational Services has been undertaken ;

(vi) An adviser in physical education has been appointed and arrangements made for the training of instructors and for the thorough revision of physical training in schools.

(c) *Collegiate education*—

(i) A committee appointed by Government to consider the Report of the Calcutta

University Commission has forwarded its recommendations for consideration by the Punjab University ;

(*ii*) Two Government Intermediate Colleges at Multan and Ludhiana commenced work in May 1920, and two others have been opened at Ambala and Rawalpindi ;

(*iii*) The Honours Schools of the Punjab University have begun operations.

(*d*) *Training and Inspection*—

(*i*) The staff of the Central Training College has been increased ;

(*ii*) A new training college has been opened at Lyallpur ;

(*iii*) Two new Normal Schools for men and one for women have been opened.

(*e*) *Technical education*—

(*i*) A Government Institute of Commerce has been opened in Lahore, which prepares students for the newly-established diploma in Commerce of the Punjab University ;

(*ii*) A scheme for an institution for training Mechanical Engineers at Moghalpura has received sanction ;

(*iii*) The Government School of Engineering, Rasul, has passed from the joint control of the Director of Public Instruction and of the Chief Engineer (Roads and Buildings Branch) to the sole charge of the latter.

(*f*) *Education of Europeans*—

(*i*) The entire curriculum of European Boys and Girls' schools has been revised on the lines recommended by the two conferences held at Simla and Lahore ;

(*ii*) The system of scholarships in European schools has been modified and extended ;

(*iii*) A uniform system of physical training is being introduced Three classes for teachers were held in the year.

(*g*) *General*—

(*i*) The scheme for the provision of free education to the children of deceased and incapacitated Indian soldiers has been extended to include the children of all Indian soldiers who were on the active list between August 4th, 1914, and November 11th, 1918, and are in indigent circumstances ;

(*ii*) The provision of libraries in the smaller municipalities have been undertaken and funds assigned for the purpose.

Controlling agencies.

395. At the beginning of November 1919 Mr. J. A. Richey went on leave and was succeeded by Mr. W. T. Wright as Director at the end of that month. Mr. Towle, the Assistant Director, held *ad interim* charge of the office. In March last Mr. Richey was recalled from leave to take up the appointment of Educational Commissioner with the Government of India. Lieutenant-Colonel J. Stephenson, C.I.E., I.M.S., Principal, Government College, and Sardar Bahadur Bhai Hari Singh, of the Indian Educational Service, retired during the year under report.

The new appointments to the Indian Educational Service during the year include Mr. D. Reynell, M.A., B.C.L., formerly of the M. A.-O. College, Aligarh, as an Inspector of Schools ; Messrs. Armstrong, Sondhi and Atma Ram confirmed ; and Mr. Maqbul Shah promoted in place of Sardar Bahadur Hari Singh. The revised terms for the Indian Educational Service came into force on December 1st last.

District Boards.

396. The increased expenditure by District Boards indicated in paragraph 393 above has led to improvements both in the schools and the pay of the teachers. The apparent apathy in building is largely due to the enormously-increased cost of labour and material. The more generous terms for building grants recently offered by Government should have some remedial result, but it is clear that local authorities have not yet

adjusted their ideas or their finances to the great change that has occurred in money values. Meantime, a provincial grant of Rs. 3·5 lakhs has, since the close of the year, been distributed amongst the District Boards in building grants.

Municipalities.

397. The activity of private agencies has led, in some cases, to undesirable competition. Experience shows that excessive facilities for Anglo-Vernacular education to the neglect of the more fundamental and important vernacular produce a waste of funds and foster an unhealthy tone.

Collegiate Education.

398. The total number of students in colleges has shown no tendency to increase since 1917—indeed, there were actually 17 less students in 1920 than in 1918.

Grants have been promised to the University by Government for the following purposes :—(*a*) The salary of the Professor of Zoology ; (*b*) the salary of the Professor of Physical Chemistry and the recurring expenditure of the proposed Laboratory; (*c*) the construction of the Chemical Laboratory (estimated at Rs. 3 lakhs). The University received, under the will of the late Mrs. Sinha, an endowment of half-a-lakh of rupees for a lectureship in Mathematics. The Government College League of Order did useful propaganda work.

The Forman Christian College has established a Co-operative Store, where a student can get a good lunch at a reasonable price. A Junior Anglo-Vernacular training class for teachers has been opened during the year in connection with the Khalsa College. The Lal Chand Memorial Library has been a valuable addition to the Dayanand Anglo-Vedic College. The Guru Nanak Khalsa College, Gujranwala, with 51 students, has completed its new science block and commenced the teaching of science subjects this year.

Secondary Education (Boys).

399. The number of recognised secondary schools for boys rose from 545 to 828 with an attendance of 163,899 scholars. This expansion of over 48,000 is largely due to the new scheme of classification whereby institutions of the vernacular lower middle grade have replaced several of the old five class primary schools. In all five divisions there is a satisfactory increase in the pupils drawn from agriculturist classes.

The total direct expenditure rose by about 25 per cent. to Rs. 40·92 lakhs, of which sum Rs. 16·76 lakhs were derived from fees and Rs. 5·89 lakhs from private sources.

The number of teachers in secondary schools was 7,659, of whom 5,177 are trained or certificated.

400. With the institution of the Matriculation and School-leaving Certificate Examination, subjects of practical utility, such as shorthand, type-writing, book-keeping, science, agriculture, etc., have attained a more prominent position, and a School Board has been constituted to deal solely with this examination. The introduction of English from the fifth instead of the fourth class was another important change of the year. The demand for English is so insistent that special classes for boys taking this language as an optional subject have been opened in a greatly-increased number of vernacular middle schools. The use of the vernacular as the medium of instruction is stated to be marked by encouraging progress, boys evincing a firmer grasp of the lessons taught and the teacher's task being sensibly lightened; but the teaching of vernacular languages generally needs improvement.

Special forms of education.

401. Anglo-Vernacular schools have begun to send up boys for the vernacular final examination. Manual training centres have been established at some places; that at Rawalpindi being a flourishing one with 550 boys from six local schools. Several schools in the Ambala, Jullundur, and Lahore Divisions have commenced agriculture. The opening of a training class for agricultural teachers at the Lyallpur Training College, in connection with the Lyallpur Agricultural College, is already supplying a number of qualified teachers. The main obstacles to the rapid development of the scheme of Agricultural education appear to be difficulties over the acquisition of land and finance, though a generous grant from the Imperial Government has eased the situation.

Revision of pay of services.

402. The scheme revising the pay of the Provincial Educational Service has recently been sanctioned (as from April 1st, 1920), and that for the revision of pay of the Subordinate Educational establishment is before Government. From October 1919 a temporary allowance of Rs. 20 per cent. was granted to every member of this service.

New Schools.

403. At Moga, owing to the generosity of His Highness the Maharaja of Patiala, a fine new Khalsa High School has been erected. Twenty-four other schools are extending their buildings.

Miscellaneous.

404. The new standard rules for Provident Funds, mention of which was made in the last year's report, are proving popular, and have already been adopted in many schools. School Co-operative Societies are making strides, and the enthusiasm with which headmasters are taking to this scheme augurs well for the success of the movement. The number of hostels attached to all kinds of schools has arisen by 38 to 490. Boarders have increased by 2,207 to 19,359. The increase is most marked in board and unaided schools. The expenditure has risen to Rs. 3·27 lakhs, of which nearly a quarter is met from provincial revenues and one-third from fees.

Primary Education (Boys).

405. Three important steps have been taken in this connection, *viz.*, (*a*) the introduction of the scheme creating the four-class type of primary schools which is now complete ; (*b*) the opening of lower and upper middle schools in selected areas ; (*c*) a more effective absorption of aided elementary schools.

The new primary schools opened by the local boards in pursuance of the programmes of expansion number 254, of which Multan claims no less than 72.

Progress.

406. The net loss of eight schools and 18,333 scholars shown is due to the transference of 316 flourishing primary schools to the list of secondary schools under the new scheme on their being raised to the lower middle grade. The total expenditure on primary schools rose by Rs. 1·17 lakh to Rs. 19·81 lakhs. Of 7,529 teachers in primary schools of all kinds 4,763 are trained and certificated.

Miscellaneous.

407. The Lahore and Amritsar Committees are interesting themselves in the re-organization of elementary education in these cities as a preliminary to the introduction of compulsion. Lahore has engaged the services of a competent superintendent, and Government has placed at the disposal of the Amritsar Municipality the services of an Assistant District Inspector for the purpose of carrying out an educational survey. Attock and Shahpur in the Rawalpindi Division and

Hoshiarpur, Ludhiana and Ferozepore in the Jullundur Division are the only districts in which the important problem of providing adequate school building is receiving satisfactory treatment. Government, however, now undertakes to bear from 75 per cent. to 100 per cent. of the cost of new buildings which will bring much-needed relief. A standard plan for cheap and efficient primary school buildings has been circulated for the information and guidance of Inspectors and local authorities.

Jullundur Division has eight night schools, of which four are in the Ferozepore District.

Training of Teachers.

408. There were 1,361 men and 329 women teachers under training as compared with 593 men and 51 women ten years ago. The number of Government Normal Schools for men rose from 12 to 14; and one new Government Normal School for women was opened. Special mention should be made of a training class for ex-soldiers opened at Gujar Khan, in the Rawalpindi District. A revised curriculum has been introduced in Normal Schools, greater attention being given in the new courses to geography, arithmetic, and nature study; while a new syallabus of lectures on hygiene has been prepared. There is a steadily growing interest in school gardens; and village games seem to be ousting cricket and football in popularity.

409. At the Lahore Normal School for Women special attention has been given to nature study, invalid cooking, home nursing, and first aid. In Ludhiana and Rawalpindi the students show great interest in the classes for general reading. In Multan the headmistress is developing the artistic side. The girls there are said to show a natural taste for beauty of line and form.

The qualifications of the candidates for admission to the Central Training College show an improvement; of 35 in the Senior Anglo-Vernacular class 30 being graduates.

410. To increase the supply of Senior Vernacular teachers senior vernacular classes were opened in the Normal Schools at Jullundur, Karnal, Sargodha and Multan in September last, and the Senior Vernacular Training College at Lyallpur replaced the Senior Vernacular class that formerly existed in the Central Training College, Lahore.

The training class for Kindergarten teachers at St. Denys' School, Murree, made a successful beginning with six students, who took the examination of the Bombay Education Department at the close of the course. This examination is recognised by the Punjab Department.

Professional, Technical, and Special Education.

411. The total number of students in the Medical College was 342 and in the Medical School 412. The candidates from the Punjab Medical School for Women (Ludhiana) in the first, second, and final certificates examination all passed.

The number in the Mayo School of Arts again shows a decline from 231 to 195. The chief cause appears to be enhanced cost of living. The class for the training of architectural draftsmen opened last year as an experiment has proved successful. In the Lyallpur Agricultural College there were 268 applications for admission against 223 in 1918; moreover, the standard of applicants has also risen, two-thirds of the admissions being first-class Matriculates. Work with the teachers' class for preparing agricultural teachers for high schools continues successful.

412. There is a fair increase in the number of girls under training in industrial schools, but a decrease of 815 in the number of boys is to be regretted. The system of grants-in-aid to these schools has been revised, and courses in the wood-work, metal work, and drawing by Mr. L. Heath, Principal, Mayo School of Arts, Lahore, will come into use this year. The Railway Technical School, Lahore, continues to do good work. The School for the Blind, Lahore, has recently been provided with a boarding-house. The School for Disabled Soldiers at Lahore has 39 men on its books, of whom two are blind. The latter are being taught hand work in the School for the Blind. The remainder of the class is taught to drive, clean, and overhaul motor cars.

413. The Government Post-Matriculate Commercial Class, opened at Amritsar in 1918, was transferred to the new Government Institute of Commerce at Lahore, and a special library grant of Rs. 2,500 was sanctioned at the close of the year. Stenography, an optional subject, has been taken up by all the students in appreciation of its market value.

Female Education.

414. The number of girls' schools has increased by 54 to 1,074. The advance is mainly in primary schools, but every type of schools contributed. There are now ten high schools and 65 other secondary schools. The expenditure on girls' schools shows an advance of Rs. 76,000 to Rs. 8·16 lakhs.

The numbers in the Kinnaird College rose from 30 to 38; 4 out of 5 candidates passed the B.A. and 10 out of 11 the Intermediate examinations. The staff has been strengthened by the addition of three lecturers, while further efforts are being made to improve the standard of physical and social recreation. Queen Mary's College (where the total number on the rolls continues to increase) also sent up two candidates for the Intermediate examination, both of whom passed, and the Convent of the Sisters of Charity prepared three candidates privately, two for the Intermediate and one for the B.A. All three were successful. In connection with the training of women teachers mention may be made of the excursions to mills, salt mines, and canal works; also to the Infant Welfare Exhibition at Delhi.

Among aided schools the Sikh Kanya Maha Vidyala, Ferozepore, and the Kinnaird High School, Lahore, merit special mention for their good work.

Education of Europeans.

415. The number of European public schools has risen from 14 to 15. Of the total number of 221 teachers 156 were trained and 18 graduates. Provident funds are universal; and salaries have been raised in almost all schools.

Including the figures for private, *i.e.*, unaided and uninspected schools the total number of pupils is 3,069. The direct expenditure on European schools amounted to Rs. 4·59 lakhs, comprising the following items :—

Imperial and Provincial funds ...	Rs. 2·62 lakhs.
Fees	Rs. 1·62 lakhs.
Other sources	Rs. ·35 lakh.

Bishop Cotton School, Simla, has revived its laboratory; the Cathedral High School for Boys, Lahore, has also opened a small laboratory; and plans are now under consideration for laboratories, manual training, and

drawing schools at Ghoragali, where also a training class for teachers of domestic science is to be established. Of 104 scholarships given 37 were won by boys and 67 by girls. The expenditure under this head amounted to Rs. 11,047. In the last two years the whole system of scholarships has been revised.

416. Courses in English, history, geography, arithmetic, and French have been greatly improved. Further, a more vocational trend has been given to the training by the introduction of type-writing and shorthand as optional subjects in the high school examination and by the complete overhauling and extension of the domestic science and needlework courses for girls. Scientific physical training has undergone a transformation, thanks mainly to Mr. R. Sanderson, who held three special courses for teachers in the year at Sanawar, Simla and Lahore.

The number of boys and girls proceeding to Universities or professional training institutions has slightly increased. Owing largely to the generous and zealous work of the Revd. O. Younghusband the Younghusband Collegiate Hostel, Lahore, is now in being.

Education of special classes.

417. A most satisfactory increase has occurred in the number of Muhammadan boys at schools, and the percentage of pupils belonging to this community in the secondary stages of education is as follows :—

Secondary Schools.	High Stage.	Middle Stage.
31·19	24·25	32·39

In the Aitchison College the financial situation is unsatisfactory. Fees realised were Rs. 7,000 short of the Budget estimates, while expenditure had increased, resulting in a considerable deficit.

Education of low castes.

418. The Ambala and Jullundur Divisions report increases in the number of low caste children reading in ordinary schools, and the Lahore Inspector comments on the number (175) of boys of other communities attending these low caste schools as compared with 508 low caste children. In the Multan Division the village schools appear to absorb the low caste children without difficulty.

Text Book Committee.

419. Of the 287 books considered by the Committee 116 were approved for one educational purpose or another. A revised list of authorised text-books will be published in the current year. The issue of revised editions of text-books continues, and steps have been taken on the representation of the Committee to put a stop to the use of unauthorised publications in schools.

The Committee, in pursuance of its decision that too much is spent on journals and magazines for schools and too little on books, will in future restrict the allotment of funds for the former to one-third. Only one book was adjudged worthy of a prize from the "Patronage of Literature Fund." The library was increased by nearly 200 books, while the issues to readers nearly doubled those of the previous year. The museum has been overhauled, and now contains only modern maps, charts, apparatus, etc., and is open during office hours to teachers.

The work of the sub-committees on the standardisation of technical terms in Urdu has been completed, and other sub-committees have commenced work on the same lines for Punjabi.

55.—Literature and the Press.

LITERATURE.

Decline in output explained.

420. The regrettable decrease in the number both of books and periodicals published may be ascribed on the one hand to the dearth of paper and increase in the cost of production, and on the other to a change for the worse in the taste of the reading public. Sensational news about current events, adverse criticism of measures taken by Government during the past year, both before and after the disturbances, reproductions of fiery speeches by political agitators, and matter of a like ephemeral nature seem to appeal more to the popular imagination than useful information and knowledge of a permanent interest imparted by good books and magazines. Further, authors and publishers prefer smaller books than before in order to command a readier sale.

Punjabi, again, claims the largest number of publications.

Subject matter of publications.

421. Poetry and Religion absorbed about half the publications; Biography declined from 28 to 14, while Fiction rose from 43 to 55, and Art, Philosophy, Science, and Voyages and Travels continued to be poor. A few small books on "Politics" dealt with the Punjab disturbances, the nature and necessity of the Rowlatt Act, India's part in the Great War, the duty of the people to keep order, the dangers of the Passive Resistance movement, Sir Syed Ahmad's political ideas, the future of Turkey (against the Khilafat), German intrigues and Britain's political relations with Afghanistan.

On the whole, the year's output was inferior in quality and quantity to that of the preceding year.

PRESS.

Newspapers.

422. There were 276 (as against 264 in 1919) newspapers and periodicals of all kinds published in the Punjab during the whole or part of the year under report. The number had fallen to 216 by the end of the year. Of these 276 newspapers, 178 were in Urdu, 58 in English, 26 in Gurmukhi, 10 in Hindi, 3 bi-lingual, and tri-lingual. The number of daily newspapers was 22, weekly 79, and monthly 141, the remainder appearing at irregular intervals. Of the daily newspapers 4 were in English, 1 each in Hindi and Gurmukhi, and the remaining 16 in Urdu, of which 1 was owned and edited by an Indian Christian, 8 represented the Hindu and 4 the Muhammadan community : the remainder were war publications.

One hundred-and-sixty-two newspapers and periodicals were published in Lahore and 43 in Amritsar. Other centres of journalistic activity were Simla (14), the Gurdaspur District (10), Ferozepore (7), Sialkot (6), Gujranwala (5), and Rawalpindi, Gujrat and Lyallpur (4 each).

Circulation.

423. The combined circulation of the whole Punjab press is estimated at 342,354 copies, as compared with 320,000 and 246,000 in 1918 and 1917, respectively. The following were the more im-

portant newspapers in the Province :—

English.

1. *Civil and Military Gazette* (English, daily).
2. *Tribune* (Hindu, daily).
3. *Liberal* (Hindu, weekly).
4. *Panjabee** (Hindu, daily)
5. *Khalsa Advocate* (Sikh, weekly).
6. *Bulletin Weekly** (Hindu, weekly).

Vernacular.

(*a*) **Urdu.**

7. *Himala* (Hindu, weekly)
8. *Partap* (Arya, weekly).
9. *Paisa Akhbar* (Muhammadan, weekly).
10. *Insaf** (Hindu, daily).
11. *Loyal Gazette* (Sikh, weekly).
12. *Parkash* (Arya, weekly).
13. *Arya Gazette* (Arya, weekly).
14. *Vakil* (Muhammadan, bi-weekly).
15. *Al-Munir* (Muhammadan, weekly).
16. *Akhbar-i-Am* (Hindu, weekly).
17. *Leader* (Hindu, daily).
18. *Khalsa Akhbar* (Sikh, weekly).
19. *Paisa Akhbar* (Muhammadan, daily).
20. *Desh* (Hindu, daily).
21. *Ahl-i-Hadis* (Muhammadan, weekly).
22. *Rajput Gazette* (Hindu, weekly).
23. *Victoria Paper* (Hindu, weekly).
24. *Aftab* (Muhammadan, daily).
25. *Siyasat* (Muhammadan, daily).

*Has since stopped publication.

26. *Al-Fazal* (Ahmadia, bi-weekly).
27. *Brahman Samachar* (Hindu, weekly).
28. *Shanti* (Hindu, weekly).
29. *Watan* (Muhammadan, weekly).
30. *Kashmiri Magazine* (Muhammadan, weekly).
31. *Public* (Hindu, daily).
32. *Sanatan Dharm Parcharak* (Hindu, weekly).
33. *Jat Gazette* (Hindu, weekly).

(*b*) **Gurmukhi.**

34. *Khalsa Samachar* (Sikh, weekly).
35. *Panth Sewak* (Sikh, weekly).
36. *Panch* (Sikh, weekly).
37. *Punjab Darpan* (Sikh weekly).

Of these the circulation of Nos. 2 and 7 was claimed to be above 6,000 copies; of No. 8, 6,000; of No. 9, above 3,500; of No. 34, 3,500; of No. 1, above 3,000; of Nos. 10 and 11, 3,000; of No. 12, above 2,500; of No. 13, above 2,000; of No. 35, 2,000; of Nos. 14 and 15, between 1,500 and 2,000; of Nos. 16 to 22, above 1,000; of Nos. 3, 23 to 25 and 36, 1,000; and of the rest, between 500 and 1,000.

Executive action.

424. The declarations filed under section 4 of Act XXV of 1867 during the year numbered 32 and under section 5 of the Act 190. Security was demanded on 35 occasions by District Magistrates. These demands were made either on original declaration or on redeclaration or by varying previous orders. No demand was made by the Local Government. Action under the Defence of India (Consolidation) Rules, 1915, consisted in the imposition of censorship on the whole press in respect of references to the April disorders and on seven newspapers of Lahore and Amritsar for a longer period. Exclusion orders under the Act were issued against one Calcutta, five Delhi, and seven United Provinces newspapers, and also to an Allahabad Company of publishers against sending any copies of the *Independent*. There were three prosecutions of Punjab editors under Rule 25-A of the Act. One newspaper editor was prosecuted under Section 124-A of the Indian Penal Code.

Formal warnings were administered, through District Magistrates, to newspapers and periodicals as follows :—

(*a*) Six for publishing articles open to exception on political grounds ;

(*b*) Nine for writings calculated to arouse sectarian feeling or religious animosity ;

(*c*) One for publishing matter of an alarmist character ;

(*d*) Four for various other reasons.

Twelve publications were proscribed under section 12 (1) of the Indian Press Act (I of 1910).

One prosecution was instituted under section 3 of Act XXV of 1867. Nineteen warnings were also given under this section.

56.—Literary Societies.

[*Vide* pages 196 and 197 of the Administration Report for the year 1911-12.]

57.—Art and Sciences.

Lahore Museum.

Exhibition

425. The new empty gallery was used for the exhibition of British and Indian Arts and Crafts for 21 days. The total income from the exhibition, including 10 per cent. commission on sales, amounted to Rs. 1,382 against an expenditure of Rs. 607. The exhibition of Punjab Industries and Arts and Crafts in this gallery will be made permanent.

Buildings.

426. The Lahore Site Committee have agreed to reserve the site now occupied by the Public Library for the future extension of the Museum. Repairs to the roofs of some of the galleries will have to be undertaken in the ensuing year.

Visitors.

427. The number of visitors sank to 391,660, with the daily average of 1,119, as against 512,395 and 1,463, respectively, in the previous year. This reduction in the record is attributable to the disturbed state of the Province for some weeks in the spring. The largest attendance was 4,536 on the 3rd of April 1919. The total number of *purdah nashin* ladies during the twelve Zenana days was 7,556.

Educational work of the Museum.

428. Twelve lectures were delivered, as usual, during the cold weather. The average attendance was 149 against 164 in the previous year. Lantern slides were lent to lecturers throughout the Province, North-West Frontier Province, and Delhi.

Wednesday continued to be observed as Students' Day.

Acquisition.

429. Two Tibetan banners, a Nepalese gilded brass image of Vishnu, and a South Indian brass lamp (Dwipa Lakshmi) were purchased. Four gold, 32 silver, and 22 copper and mixed metal coins were presented by various Local Governments and Native States. A rare specimen of a Kashmir embroidered shawl and a selection of modern Moradabad *lac* inlay brass work were purchased from Lucknow. Among other purchases mention may be made of a Bokhara (Tekke Turkman) rug of fine design, colour and texture, two *phulkaris* and an illuminated and illustrated Nava Chakra Vidhana of the Tantrikas—a Kashmir work of the middle 19th century.

Some old Indian paintings—1 Indo-Persian, 6 *Tibitt* pictures, and four modern Indian paintings by the artists of the new Calcutta School of Painting—have been purchased for the Picture Gallery.

Loan collection.

430. The Afghan guns received from the Deputy Commissioner, Lahore, were returned to the Military authorities. Two Tibetan manuscripts loaned by Mr. A. St. G. Lyster were returned to the owner.

Work done in the Museum.

431. The renewal of labels has been taken in hand and should be finished in the course of the current year. Brass, copper, and *papier mache* objects in the Archæological section are being arranged and labelled. Some of the textile fabrics have been properly repaired. The Ornithological collection has been disinfected for preservation purposes.

Finance.

432. The expenditure amounted to Rs. 13,191.

CHAPTER VIII.

ARCHÆOLOGY.

Detailed information on the subject of this chapter will be found in the annual progress reports of the Superintendent, Hindu and Buddhist Monuments, Northern Circle, Lahore, and of the Superintendent, Muhammadan and British Monuments, Northern Circle, Agra, for the year ending 31st March 1920, and in the Administration Report of the Buildings and Roads Branch, Public Works Department, Punjab, for the year 1919-20.

58—Archæology.

HINDU AND BUDDHIST MONUMENTS.

433. During the year the expenditure on special works of conservation of the Hindu and Buddhist monuments in the Punjab amounted to Rs. 3,168 ; the expenditure on annual repairs to Rs. 864. The only works of the former class that deserve special mention are those carried out at the temple and gateway at Malot and the temple in the Hindu fort at Amb in the Salt Range. The repairs effected at Malot completed the conservation of the plinth of the temple and the clearance of surrounding *débris*. The acquisition of the mounds at Harappa in the Montgomery District, for purposes of archæological exploration, has been effected and the actual work of excavation will be taken in hand in due course. Proposals have also been submitted to Government for the acquisition of the mound, known as Raja Karna-ka-Qila, at Thanesar, in the Karnal District, which bids fair to yield valuable relics.

MUHAMMADAN AND BRITISH MONUMENTS.

434. A sum of Rs. 31,638 was expended on Muhammadan and British Archæological works in the Punjab, of which Rs. 20, 170 was spent on special works (including Rs. 500 for the acquisition of the land on which the Begum-ki-Sarai at Attock is situated), and the balance on the annual maintenance of monuments. This account does not include the sums expended on the upkeep of the gardens connected with historical monuments which

add so greatly to the interest of the monuments or are themselves of a historical nature, such as those at Jehangir's and Nur Jahan's tombs and the Akbari Sarai at Shahdara, the Hazuri Bagh, and Shalamar Garden. Even allowing for the increased expenditure since last year of Rs. 5,536 on Muhammadan and British monuments, the total falls considerably short of the average expenditure for the five years before the war, which amounted to Rs. 65,678. Moreover, owing to the increase of rates the cost of labour has greatly affected the amount of actual work completed, with the result that this was little more than one-quarter of what used to be done before the war.

435. At Hasan Abdal, in the Attock District, funds were given by the Government of India for the conservation of the "Hakim's Tomb" adjoining the walled enclosure surrounding the tomb of Lala Rukh, the supposed daughter of Aurangzeb. The work taken in hand consisted of repairs to the stone platform and to the building itself. Two tanks near by were cleaned out, repaired, and cleared of trees and jungle. This spot used to be one of the halting-places of the Moghul court when travelling to and from Kashmir, and it was then said to be a beautiful garden. A stream of clear water flows by the side of the two tombs, and with this as a nucleus it is proposed to restore the place from the barren wilderness that it now is to something resembling its old beauty. The only large work that has been in progress this year is the conservation of the compound walls of the tomb at Shahdara, near Lahore, containing the remains of Asaf Khan, minister of the Emperor Jahangir. Of the estimated cost of Rs. 38,549 only Rs. 13,200 were expended, the work consisting chiefly in under-pinning, re-facing where bricks had fallen out, buttressing, and generally putting into good order the surrounding wall which adjoins the Akbari Sarai whence entrance is gained to Jahangir's tomb enclosure. Asaf Khan's tomb itself was repaired several years ago, but the large compound remained neglected and overgrown with jungle. There yet remain the conservation of the brick platform on which the tomb stands and the brick pathways and the general laying out of the garden.

436. The construction of a monument to mark the site of the Buddhu-ka-Awa (Buddhu's kiln) was brought to completion. Buddhu was the brick-maker at the court of

Jahangir, and his tomb—a small *chattri* in a ruinous condition—is close to the new monument which is situated on the Shalimar road. At Sheikhupura special repairs to the large masonry tank, the pavilion in the middle of it, and the Munara were completed. This work, although of considerable extent, has all been of a straightforward nature, involving little or no details. There yet remains to be undertaken a scheme for the lay-out of the surroundings to the tank, the planting of trees and shrubberies, and construction of a driving road. The whole site, which is about two miles from new District Head-quarters, should form an amenity to the new station. A sum approximating Rs. 8,000 was expended on the maintenance of archæological buildings in and round Lahore.

CHAPTER IX.

MISCELLANEOUS.

59.—Ecclesiastical Jurisdiction.

(For this section reference should be made to pages 201—207 of the Report for 1911-12.)

60.—Ecclesiastical.

437. During the year under report the Bishop of Lahore was obliged to be on furlough for seven months, and the charge of the Diocese was held by the Archdeacon of Lahore as the Bishop's Commissary. The Triennial visitation of the clergy, postponed from the previous year, was held in Lahore in February.

Four new chaplains were appointed to the establishment, taking the places of three retired on pension and one resigned. The demand for chaplains to serve with troops in the Afghan War and on the Frontier made it extremely difficult to meet the ordinary needs of the Diocese during the summer of 1919.

61.—Stationery.

438. The value of stationery supplied during the year under report was Rs. 4,51,913, exhibiting an excess of Rs. 1,842 over the allotment. Compared with the expenditure of the preceding year it shows an increase of Rs. 61,361, and an increase of Rs. 1,19,321 over 1918-19. Much of the addition was due to paper required for the lithographing of patwaris' and kanungos' forms.

62.—Punjab Government Press.

Labour.

439. The year was a period of general industrial unrest, but except for a short strike of piece-work distributors no serious dislocation of work was occasioned. There is a great scarcity of skilled labour, especially in the composing department, and each year it is becoming more difficult to get trained compositors, while new candidates for training are not coming forward.

Finance.

440. The value of printing executed by the Press was the largest on record, being almost Rs. 30,000 in excess of the previous year. The revenue from sale of Government publications, advertisement charges, etc., was also more than doubled—Rs. 33,955 against Rs. 15,937 in 1918-19. This increase was, to some extent, due to the publication by the Press of the Indian Law Reports, Lahore Series.

General expenditure, exclusive of the cost of printing, paper and binding materials, amounted to Rs. 2·65 lakhs against Rs. 2·56 lakhs in the preceding year. There being no increase in establishment the additional work involved a greater expenditure on overtime.

Temporary allowances were sanctioned from the 1st October 1919 for all non-gazetted employés of the Press drawing less than Rs. 400 per mensem.

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